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Vol. V

TRANSCRIPT OF RECORD

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Supreme Court of the United States

OCTOBER TERM, 1937

No. 313

LONE STAR GAS COMPANY, APPELLANT,

vs.

**STATE OF TEXAS, THE RAILROAD COMMISSION
OF TEXAS, ET AL.**

**APPEAL FROM THE COURT OF CIVIL APPEALS FOR THE THIRD
SUPREME JUDICIAL DISTRICT OF THE STATE OF TEXAS**

FILED AUGUST 15, 1937.

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VOL. V

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Defendant's Exhibit No. 28—Continued

[fol. 8584] Construction Period—First Year

Two Telephones at \$6.60 per month for twelve months	\$158
Telegrams and Tolls \$51 per day for 300 days.....	4,500

Total.....	<u>\$4,658</u>
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Construction Period—Second Year.....	<u>\$4,658</u>
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Construction Period—Third Year.....	<u>\$4,658</u>
-------------------------------------	----------------

First Year—Plant Wholly Operative.....	<u>\$4,658</u>
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Second Year—Plant Wholly Operative.....	<u>\$4,658</u>
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Office Furniture and Fixtures and Special Equipment

Special Equipment

10—Hayes Flue Gas Analyzer sets at.....	\$110	\$1,100
2—400 H.P. Boiler Feed Water Meters.....	175	350
5—300 H.P. Boiler Feed Water Meters.....	100	500
5—Steam Flow Meters.....	200	1,000
Miscellaneous Gauges and Thermometers.....		1,500

Total.....	<u>\$4,450</u>
------------	----------------

Office Furniture and Fixtures

Office of Chief Industrial Engineer.....	\$250
Office of Assistant Industrial Engineer.....	211
Office of Office Engineer.....	211
Office of Stenographers and Draftsmen.....	720

Total.....	<u>\$1,392</u>
------------	----------------

Cost of Industrial Sales Section

Recapitulation

Pre-Construction Period

Salaries.....	\$21,360
Stationery, Office and Special Supplies.....	756
Transportation Expense.....	7,403
Traveling Expenses.....	5,580
Communication Expenses.....	2,329
Office Furniture and Fixtures and Special Equip- ment (Depreciation Only).....	292

Total.....	<u>\$37,720</u>
------------	-----------------

Defendant's Exhibit No. 28—Continued

[fol. 8585] Construction Period—First Year

Salaries.....	\$42,720
Stationery, Office and Special Supplies.....	1,712
Transportation Expenses.....	14,807
Traveling Expenses.....	11,160
Communication Expenses.....	4,658
Office Furniture, Fixtures and Special Equipment (Depreciation Only).....	584
Total.....	<u>\$75,641</u>

Construction Period—Second Year

Salaries.....	\$72,720
Stationery, Office and Special Supplies.....	3,520
Transportation Expenses.....	31,753
Traveling Expenses.....	20,760
Communication Expenses.....	4,658
Office Furniture, Fixtures and Special Equipment (Depreciation Only).....	584
Total.....	<u>\$133,995</u>

Construction Period—Third Year

Salaries.....	\$99,840
Stationery, Office and Special Supplies.....	5,696
Transportation Expenses.....	38,541
Traveling Expenses.....	30,360
Communication Expenses.....	4,658
Office Furniture, Fixtures and Special Equipment (Depreciation Only).....	584
Total.....	<u>\$179,679</u>

First Year—Plant Wholly Operative

Salaries.....	\$67,440
Stationery, Office and Special Supplies.....	4,608
Transportation Expenses.....	38,909
Traveling Expenses.....	25,560
Communication Expenses.....	4,658
Office Furniture, Fixtures and Special Equipment (Depreciation Only).....	584
Total.....	<u>\$141,759</u>

Defendant's Exhibit No. 28—Continued

Second Year—Plant Wholly Operative

Salaries.....	\$52,020
Stationery, Office and Special Supplies.....	3,432
Transportation Expenses.....	24,813
Traveling Expenses.....	15,960
Communication Expenses.....	4,658
Office Furniture and Fixtures and Special Equipment (Depreciation Only).....	584
[fol. 8586-8591] Total.....	<u>\$101,467</u>
Grand Total.....	<u><u>\$670,261</u></u>

Estimate of the Rate of Acquisition of Industrial Sales

In order to estimate the rate of acquisition of the industrial sales of Lone Star Gas Company as of January 1, 1933, it is first necessary to determine the percentage of the sales for the year ended December 31, 1931, that would be made available to the company's system (in reproduction) by the progress of the construction program that has been adopted.

The following tabulations taken from the records of Lone Star Gas Company and the records of the distributing companies served by it, set out the volume of industrial sales, the money received from these sales in each of the cities and towns in which industrial sales were made, and the construction year in which these cities and towns would be attached to the system.

First Construction Year:

Towns	M. Cubic Ft.	Amount
Dallas		
Dallas Gas Company.....	2,808,295	\$447,544.72
County Gas Company.....	76,879	12,360.64
Fort Worth Division.....	3,136,173	515,848.67
Abilene (North Park).....	18,673	2,707.64
Abilene.....	549,974	89,559.69
Cleburne.....	116,472	19,574.65
Denison.....	72,241	14,306.59
Sherman.....	215,545	36,794.62
Waco.....	483,224	83,736.32
Wichita Falls.....	88,579	19,640.26
Albany.....	6,659	1,214.08
Baird.....	21,316	3,481.81
Clyde.....		
Eastland.....	9,643	2,104.12
Moran.....	217	31.47
Putnam.....	3,128	453.57

Defendant's Exhibit No. 28—Continued

[fol. 8592] Third Construction Year (Cont'd)

	M. Cubic Ft.	Amount
Towns		
Ryan.....	10,660	\$2,018.13
Snyder.....		
Sulphur.....	51,059	9,329.49
Tipton.....	11,288	2,612.54
Walters.....	6,819	1,874.47
Waurika.....	8,134	1,837.14
Wayne.....	856	235.16
Wynnewood.....	21,771	3,111.64
Byers.....	2,643	450.43
Petrolia.....	119	37.17
Bellevue.....		
Sunset.....		
Alvord.....	977	175.96
Iowa Park.....	3,867	909.76
Temple Power and Light Company.	6,947	1,493.62
Burkburnett.....	306,352	33,698.72
Texas Right-of-way Sales.....	3,043,725	355,369.78
Oklahoma Right-of-way Sales.....	14,866	2,070.54
Total.....	4,855,275	\$641,255.88
Grand Total.....	14,116,540	\$2,184,540.22
Per cent of Total Industrial Sales First Construction Year..		54.69
Per cent of Total Industrial Revenue First Construction Year		58.18
Per cent of Total Industrial Sales Second Construction Year..		10.91
Per cent of Total Industrial Revenue Second Construction Year.....		12.47
Per cent of Total Industrial Sales Third Construction Year..		34.40
Per cent of Total Industrial Revenue Third Construction Year.....		29.35

In connection with the foregoing tabulations from which the percentages of industrial sales of Lone Star Gas Company for the year ended December 31, 1931, have been determined with reference to the construction years in which the individual cities and towns would be attached to the system, it has been estimated that industrial gas service would be initiated at the end of the first six month's construction. This assumption would result in an average of three months service during the first construction year to the cities and [fol. 8593] towns attached during the First Construction Year, an average of six months service during the Second Construction Year to the cities and towns attached during the Second Construction Year, and an average of six months

service during the Third Construction Year for cities and towns attached during the Third Construction Year. For each year following the initiation of service, it is assumed that the business acquired by each group during each year would be attached uniformly throughout the year.

The following tabulation sets out the relation of the total industrial revenue of Lone Star Gas Company as of December 31, 1931, as developed for the cities and towns attached during the construction period; to the time that service would be available to each group during the construction and post-construction periods. For convenience, the cities and towns reached during the first, second, and third construction years will be called Group I, Group II, and Group III, respectively.

Cities and Towns	Group I	Group II	Group III
Percent of Total Industrial Revenue.....	58.18	12.47	29.35
First Construction Year.....	3 Months Av.		
Second Construction Year.....	One Year	6 months Av.	
Third Construction Year.....	One Year	One Year	6 Months Av.
First Operative Year.....	One Year	One Year	One Year
Second Operative Year.....	One Year	One Year	One Year
Third Operative Year.....	One Year	One Year	One Year
Fourth Operative Year.....	One Year	One Year	One Year

Rate of Acquisition of Industrial Sales by Groups:

The estimate of the rate of acquisition of industrial sales by groups of cities and towns attached during each of the construction years is based upon the actual experience of Lone Star Gas Company during the period between 1920 and 1927. During the year 1921, the industrial sales of the company were 2,600,000 M. cubic feet. In 1927 the sales had [fol. 8594] reached 24,200,000 M. cubic feet. The historical rate of acquisition during this period has been modified by increasing the rate of acquisition during the first, second and third development years, and the results applied to Groups I and II for the reason that practically all cities and towns in Groups I and II were a part of the system from 1921 to 1927. The industrial sales in Group III would be acquired at a more rapid rate, and the estimated rate of acquisition has been adjusted to conform to this condition.

The following tabulation sets out the estimated annual rates of industrial sales acquisition for cities and towns in Groups I, II, and III.

Defendant's Exhibit No. 28—Continued

Year	Group I. % of Total	Group II. % of Total	Group III. % of Total
First Construction Year.....	20.6	.....	.....
Second Construction Year.....	23.4	20.6	.....
Third Construction Year.....	23.4	23.4	40.0
First Year Wholly Operative.....	21.0	23.4	25.0
Second Year Wholly Operative.....	7.9	21.0	20.0
Third Year Wholly Operative.....	3.7	7.9	10.0
Fourth Year Wholly Operative.....	.....	3.7	5.0

The foregoing percentages of annual acquisition represent the estimated percentage of the industrial sales acquired at the end of each period. The average percentages acquired for each period are shown in the following tabulation:

Year	Group I. % of Total	Group II. % of Total	Group III. % of Total
First Construction Year.....	5.2	.....	.....
Second Construction Year.....	32.3	10.3	.....
Third Construction Year.....	55.7	32.3	20.0
First Year Wholly Operative.....	77.9	55.7	52.5
Second Year Wholly Operative.....	92.3	77.9	75.0
Third Year Wholly Operative.....	98.2	92.3	90.0
Fourth Year Wholly Operative.....	100.0	98.2	97.5

These percentages were obtained by adding one-half of the percentages acquired in each year to the cumulative percent-[fol. 8595] ages of the preceding years. This method conforms to the assumption that the business acquired in any given year would be secured uniformly during the year.

Cost of Gas:

In order to determine the net revenue from the sale of industrial gas, it is necessary to fix the cost of gas. The cost of gas together with the cost of securing the business are proper deductions from the gross revenues received by Lone Star Gas Company from the sale of industrial gas in order to fix the net revenues from such sales.

For the year ended December 31, 1931, Lone Star Gas Company paid \$1,456,830.39 for 23,017,174 M. cubic feet (as measured), or an average price of 6.33 cents per M. cubic feet. It is impossible to determine with any degree of accuracy the cost of gas produced by the company. Furthermore, the amount of gas purchased by the company during the year 1931 represented 72.25 per cent of the total gas purchased and produced. For these reasons, together with the fact that there would be no material difference between the actual cost of gas produced and the cost of gas purchased,

the average cost of gas purchased is used as the basis for the estimate.

Cost of Compression:

During the year 1931, Lone Star Gas Company compressed 73.8 per cent of the total gas delivered at an average cost of 1.74 cents per M. cubic feet compressed (operation only).

It is probable that the percentage of compression for gas sold for industrial use would be some what less than the percentage of compression for all gas delivered. For this reason, it is estimated that 50 per cent of the gas sold for [fol. 8596] industrial use would be compressed. This assumption results in a cost of .87 cents per M. cubic feet for the cost of compression for gas sold for industrial use.

Estimate of Net Revenue from Industrial Sales by Years

Group I

Gross Industrial Revenues Group I.—1931.....	\$1,270,963
Less: 7,720,923 M. cubic feet at 7.2 cents per M.	555,906

Gross Revenue less cost of gas and Compression...	<u>\$715,057</u>
---	------------------

First Construction Year

\$715,057 × 20.6% for three Months.....	\$36,825
---	----------

Less: Sales Expense

Pre-Construction Period.....	\$37,720
------------------------------	----------

Sales expense

First Construction Year.....	75,641
------------------------------	--------

113,361

Total.....	<u>†\$76,536</u>
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Second Construction Year

\$715,057 × 32.3% for one year.....	\$230,963
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Less: Sales Expense Second Construction Year.....	133,995
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Total.....	<u>\$96,968</u>
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Third Construction Year

\$715,057 × 55.7% for one Year.....	\$398,287
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Less: Sales expense Third Construction Year.....	179,679
--	---------

Total.....	<u>\$218,608</u>
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† Red in copy.

Defendant's Exhibit No. 28—Continued

First Year Plant Wholly Operative

\$715,057 × 77.9% for one Year.....	\$557,029
Less: Sales Expense First Year Plant Wholly Operative.....	141,759
Total.....	<u>\$415,270</u>

Second Year Plant Wholly Operative

\$715,057 × 92.3% for one Year.....	\$659,998
Less: Sales Expense Second Year Plant Wholly Operative.....	101,467
Total.....	<u>\$558,531</u>

[fol. 8597]

Third Year Plant Wholly Operative

\$715,057 × 98.2% for one Year.....	\$702,186
Less: Sales expense Normal Year.....	101,467
Total.....	<u>\$600,719</u>

Fourth Year Plant Wholly Operative

\$715,057 × 100% for one Year.....	\$715,057
Less: Sales expense Normal Year.....	101,467
Total.....	<u>\$613,590</u>

(Note) All sales expenses have been charged against Group I. No additional accuracy of estimate could be secured by an allocation of these expenses to the other groups.

The sales expenses for the Second Year Plant Wholly Operative are estimated to be the normal expenses of the Industrial Section.

Group II

Gross Industrial Revenue Group II.—1931.....	\$272,322
Less: 1,540,342 M. cubic feet at 7.2 cents per M....	110,905

Gross revenue less cost of Gas and Compression....	<u>\$161,417</u>
--	------------------

Second Construction Year

\$161,417 × 20.6% for six Months.....	<u>\$33,262</u>
---------------------------------------	-----------------

Third Construction Year

\$161,417 × 32.4% for one Year.....	<u>\$52,138</u>
-------------------------------------	-----------------

First Year Plant Wholly Operative

\$161,417 × 55.7% for one Year.....	<u>\$89,909</u>
-------------------------------------	-----------------

Defendant's Exhibit No. 28—Continued

Second Year Plant Wholly Operative		
\$161,417 x 77.9% for one Year.....	<u>\$125,744</u>	
Third Year Plant Wholly Operative		
\$161,417 x 92.3% for one Year.....	<u>\$148,988</u>	
Fourth Year Plant Wholly Operative		
\$161,417 x 98.2% for one Year.....	<u>\$158,511</u>	
[fol. 8598]		
Group III		
Gross Industrial Revenue Group III.—1931.....	\$641,256	
Less: 4,855,275 M. cubic feet at 7.2 cents per M.....	<u>349,580</u>	
Gross Revenue less cost of Gas and Compression...	<u>\$291,676</u>	
Third Construction Year		
\$291,676 x 40% for six Months.....	<u>\$58,335</u>	
First Year Plant Wholly Operative		
\$291,676 x 52.5% for one Year.....	<u>\$153,130</u>	
Second Year Plant Wholly Operative		
\$291,676 x 75% for one Year.....	<u>\$218,757</u>	
Third Year Plant Wholly Operative		
\$291,676 x 90% for one Year.....	<u>\$262,508</u>	
Fourth Year Plant Wholly Operative		
\$291,676 x 97.5% for one Year.....	<u>\$284,384</u>	
Recapitulation of Credits to Fixed Charges on Idle Plant		
First Construction Year		
Group I.....		\$76,536†
Second Construction Year		
Group I.....	\$96,968	
Group II.....	<u>16,626</u>	
		113,594
Third Construction Year		
Group I.....	218,608	
Group II.....	<u>52,138</u>	
Group III.....	<u>58,335</u>	
		329,081

† Red in copy.

Defendant's Exhibit No. 28—Continued

First Year Wholly Operative

Group I.....	\$415,270
Group II.....	89,909
Group III.....	153,130

\$658,309

Second Year Wholly Operative

Group I.....	558,531
Group II.....	125,744
Group III.....	218,757

903,032

[fol. 8599]

Third Year Wholly Operative

Group I.....	600,719
Group II.....	148,988
Group III.....	262,508

1,012,215

Fourth Year Wholly Operative

Group I.....	613,590
Group II.....	158,511
Group III.....	284,384

1,056,485Total.....\$3,996,180

[fol. 8600]

Personnel Costs

In the estimate of Undistributed General Costs no specific allowance has been included for the costs that would be incurred in the reproduction of the property and business of Lone Star Gas Company in connection with collecting, employing and coordinating into working unit the personnel that would be required for the various departmental organizations.

In summarizing the factors that contribute to the Going Value of Lone Star Gas Company as of January 1, 1933, the sixth factor enumerated set out the fact that the company, over a period of more than twenty years operating experience, had developed a highly trained and efficient operating personnel consisting of executives, counsel, technicians, department heads and other employees, each of whom was familiar with all phases of the natural gas business in general, and with all phases of the business and property of Lone Star Gas Company in particular.

It was further noted that this trained organization had peculiar value due to the fact that the natural gas business

is not a universal public service enterprise but is confined by natural reasons, to limited geographic areas and that trained and experienced natural gas executives, operators and technicians are correspondingly difficult to secure and to weld into a functioning organization.

This general statement could be made specific by an analysis of the experience and qualifications of the various members of the Lone Star Gas Company organization. A number of the departmental heads are outstanding in their respective lines of work. In practically every case responsible department heads, together with their immediate subordinates, have been associated with the organization of the company for a number of years. To the value of their inherent technical qualifications, there has been added the value that has been brought about by an intimate familiarity with the operating and physical details of the property itself.

The existence of this coordinated personnel and its definite association with this particular property constitutes an element of value that would be recognized and paid for by any willing buyer of the property as of January 1, 1933. The existence of this element of value is not difficult to determine, but the worth of it measured in terms of dollars cannot be fixed by any mathematical formula. The reasonableness of the current operating charges of the company and the reasonableness of the unit costs of reproduction which have been used as the basis of the determination of the reproduction cost of the physical elements of the property are examples of the effect of the value of the operating personnel upon any current investigation regarding the rates and charges of the company.

Aside from the consideration that should be given to the element of value that inheres in the property of Lone Star Gas Company by reason of its trained personnel and its established operating routines, in the reproduction of this property certain out-of-pocket expenditures would be incurred in the physical assembly and selection of the various individuals set out as part of the various department groups detailed in the preceding volume of this report. This element of "Cost" would necessarily be incurred in reproduction without reference to the "Value" of the organization to the company after its construction program had been completed. [fol. 8602] In addition to the costs of assembly and selection

there would also be additional and inescapable costs in connection with personnel turn-over during the normal construction period and the early development years. This cost would be incurred in connection with:

1. The expense of interviews with prospective executives and department heads.
2. The excess salaries required to secure trained men from the personnel of other natural gas companies.
3. The expense of moving household furniture of executives and department heads.
4. The lack of efficiency on the part of subordinate employees during the earlier part of the construction period.

As previously noted in another section of this report, the unit costs of construction used in the estimate of the reproduction cost of the physical property were based upon the assumption that the company would construct the property without the intermediary services of a general engineering contractor. The method of estimate adopted eliminated the item of contractor's profit and correspondingly increased the personnel and the responsibilities of the administrative and supervisory group included in the estimate of Undistributed General Costs.

In the estimate of Undistributed General Costs the salaries adopted conform very closely to the salaries paid in normal times to the various individuals whose functions in the organization are set out in detail in the estimate. In no case do the salaries adopted reflect the salaries that would be required to secure the services of the various individuals from the organizations of going concerns.

[fols. 8603-8604] In the development of the various departmental groups the personnel set out has been based upon the assumption that each individual was qualified for his specific work and was trained in the routines required for the efficient discharge of his duties. In actual practice no such ideal conditions could be realized and this failure to conform to the stipulations of this estimate would result in an increased operating personnel and in increased costs.

It is estimated that the minimum cost of the factors heretofore discussed would be not less than \$200,000 in the reproduction of the physical property of Lone Star Gas Company.

Defendant's Exhibit No. 28—Continued

[fol. 8605]

Working Capital

General Summary

Materials and Supplies	\$555,000
Cash Working Capital	555,000
Advances on Gas Purchase Contracts	436,000
Pre-Paid Insurance and Rentals	40,000
Incomplete Construction	100,000
Gas in System	15,600
Total	\$1,701,600

[fol. 8606]

Working Capital

Definition:

Cash Working Capital, as used in this reproduction cost of the property and business of Lone Star Gas Company as of December 31, 1932, is intended to include the necessary investment in materials and supplies, advances on gas purchase contracts, pre-paid items of expense, monies invested in materials of construction, and labor for property in construction and not included in the investment accounts in this appraisal; the necessary cash required to operate the company and the normal cash balances required for proper accommodation from commercial banks. Cash Working Capital as distinguished from the structural and general costs, included in this appraisal, is a requirement and a necessary investment of a property in operation. For this reason, the items included in this estimate are based upon the current operating experience of Lone Star Gas Company.

Materials and Supplies \$555,000:

Lone Star Gas Company's investment in materials and supplies used in the operation of its public service property, was as of December 31, 1932, approximately \$545,000. In addition to this sum, the company had distributed over its system \$10,000 worth of pipe for emergency replacements and repairs. This pipe has been inventoried and priced, and the above figure determined.

Cash Working Capital \$555,000:

The average operating expenses of Lone Star Gas Company for the year 1932, were \$170,000 per month exclusive

of the cost of gas purchased. The least cash upon which the company could operate would be the operating requirements for a forty five day period, or \$255,000. No company could [fols. 8607-8608] operate without the maintenance of normal cash balances. Commercial banks extending accommodations require that such balances be maintained no less than sound business management. Lone Star Gas Company maintained such balances, and \$300,000 is estimated as the minimum allowance for this purpose.

Advances on Gas Purchase Contracts \$436,000:

In the normal conduct of its business, Lone Star Gas Company at all times has substantial amounts tied up in cash and the cost of materials advanced to the producers of gas. The sum represented by these cash advances and the cost of materials as of December 31, 1932, was \$436,000.

Pre-Paid Insurance and Rentals \$40,000:

The sum of \$40,000 represents the actual outlay on the part of Lone Star Gas Company for pre-paid insurance and rentals as of December 31, 1932. This is a normal amount for this type of expense.

Incomplete Construction \$100,000:

As of December 31, 1932, the net amount of incomplete construction not included in the investment accounts of this appraisal was approximately \$100,000. This figure has been arrived at after giving proper consideration to the amounts involved in non-public service property, expenditures made in behalf of other companies and other proper deductions:

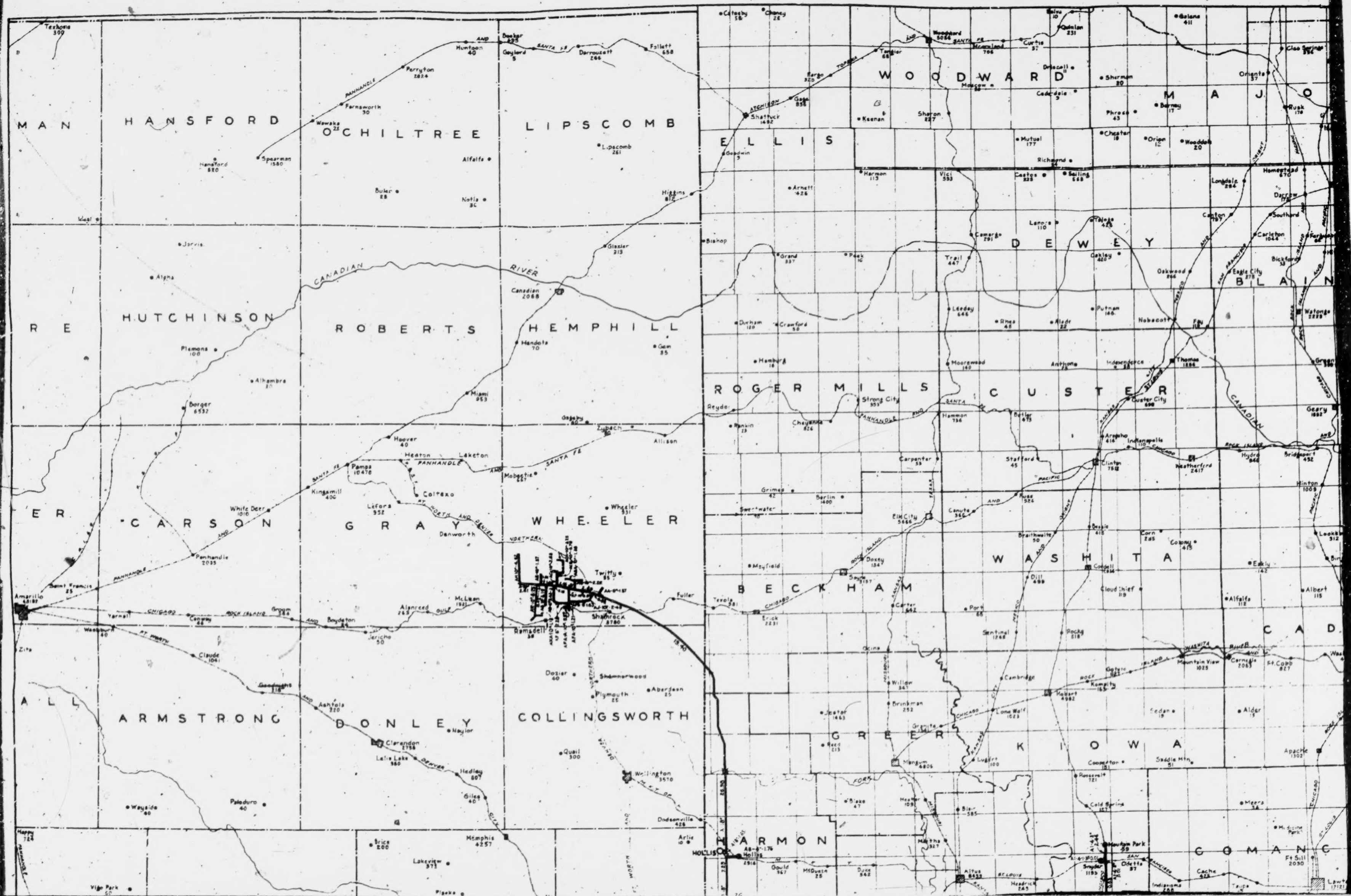
Gas in the System \$15,600:

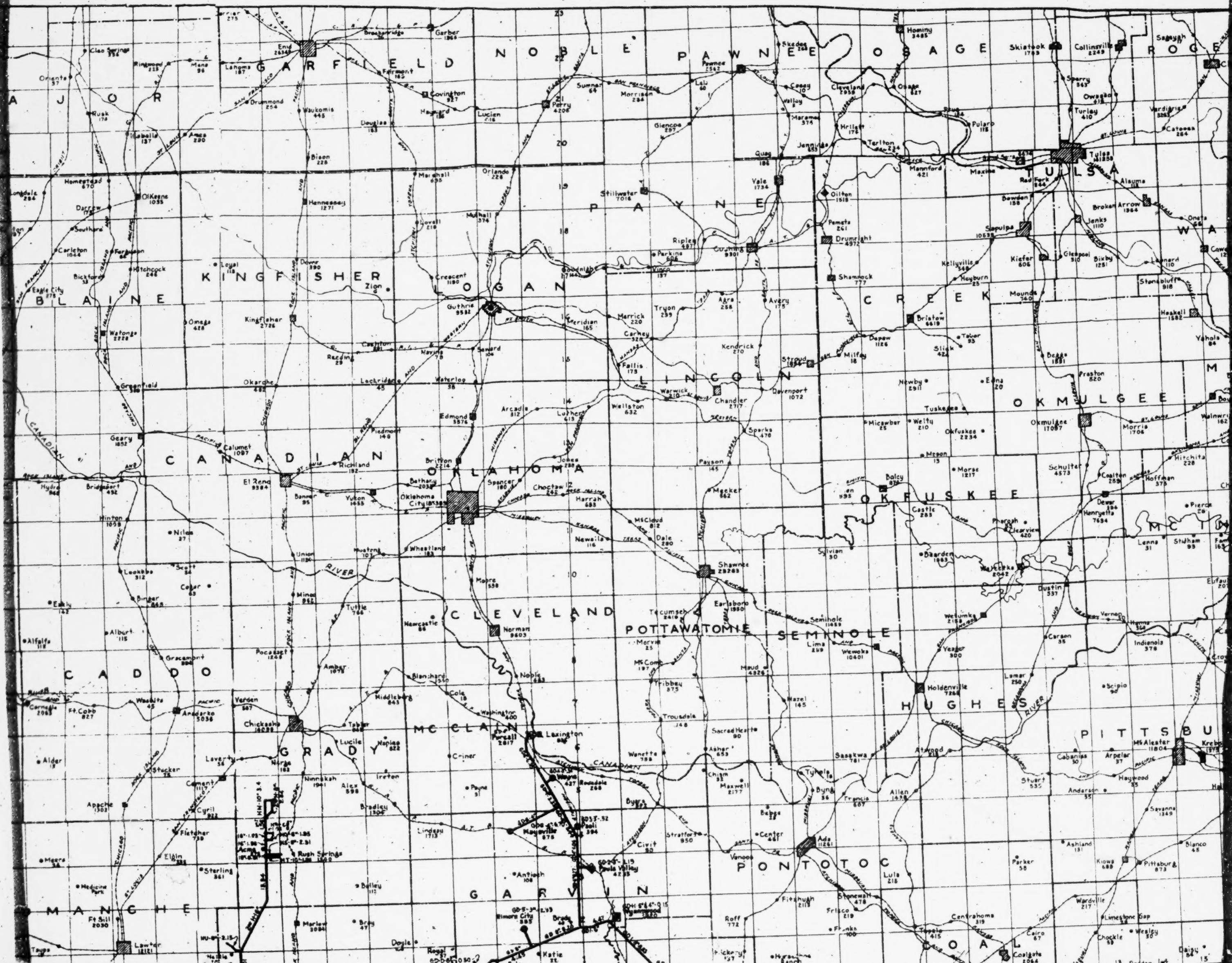
The cubical contents of the pipe line system of Lone Star Gas Company is 156,425 cubic feet, based upon an average working pressure of 200 pounds per square inch. The average cost of this gas after field expenses and compression costs have been added to the base cost of the gas is not less than ten cents per cubic foot.

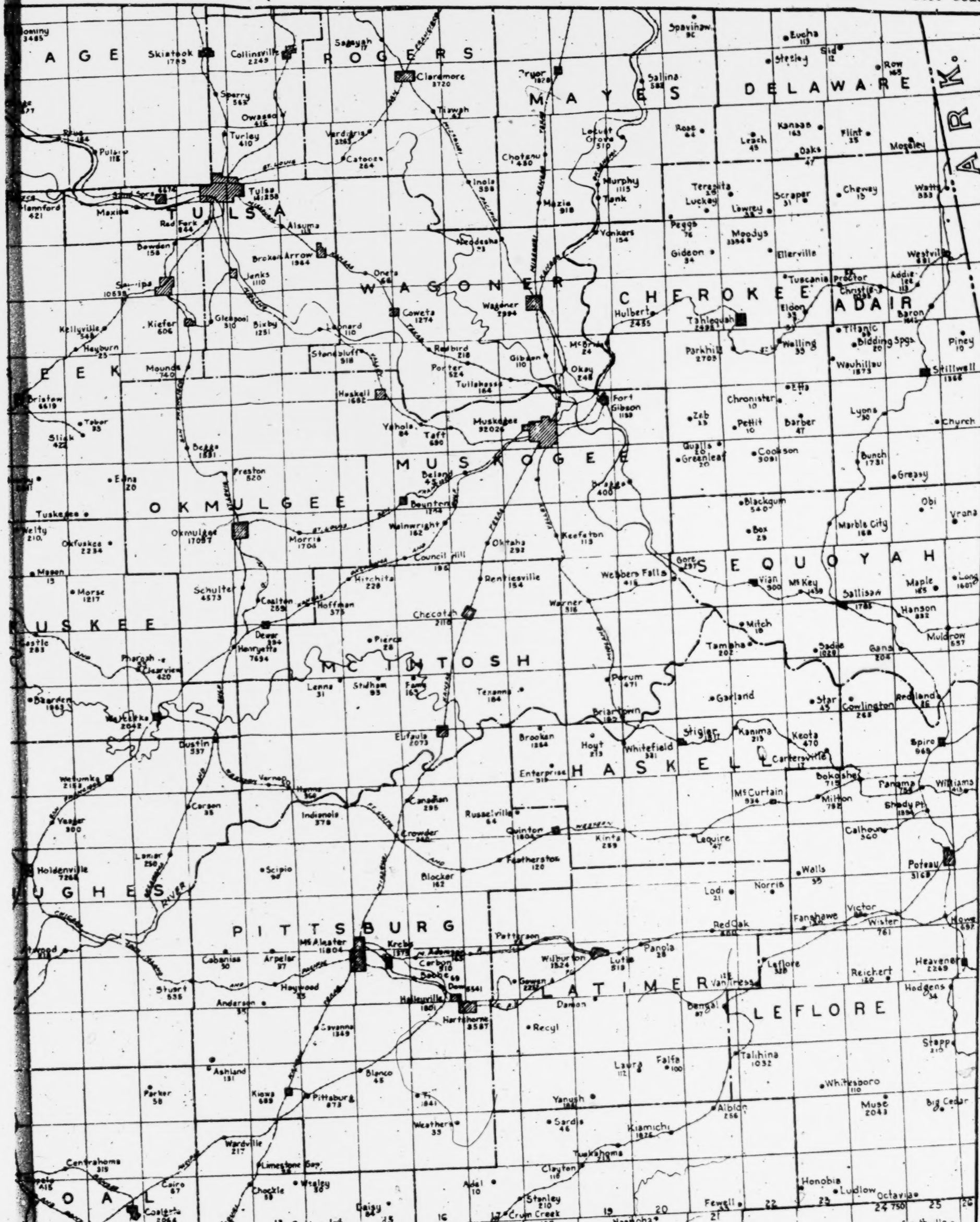
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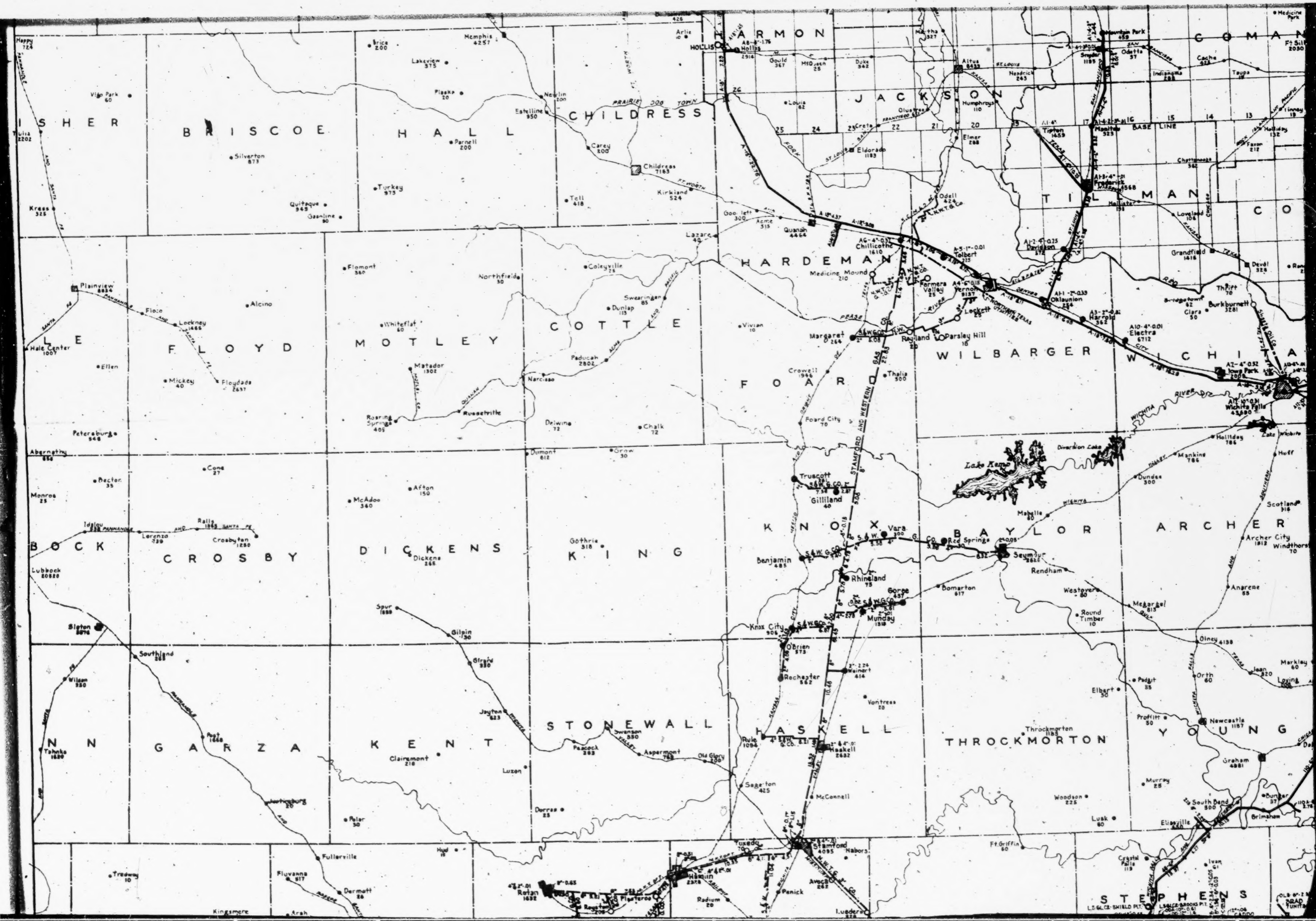
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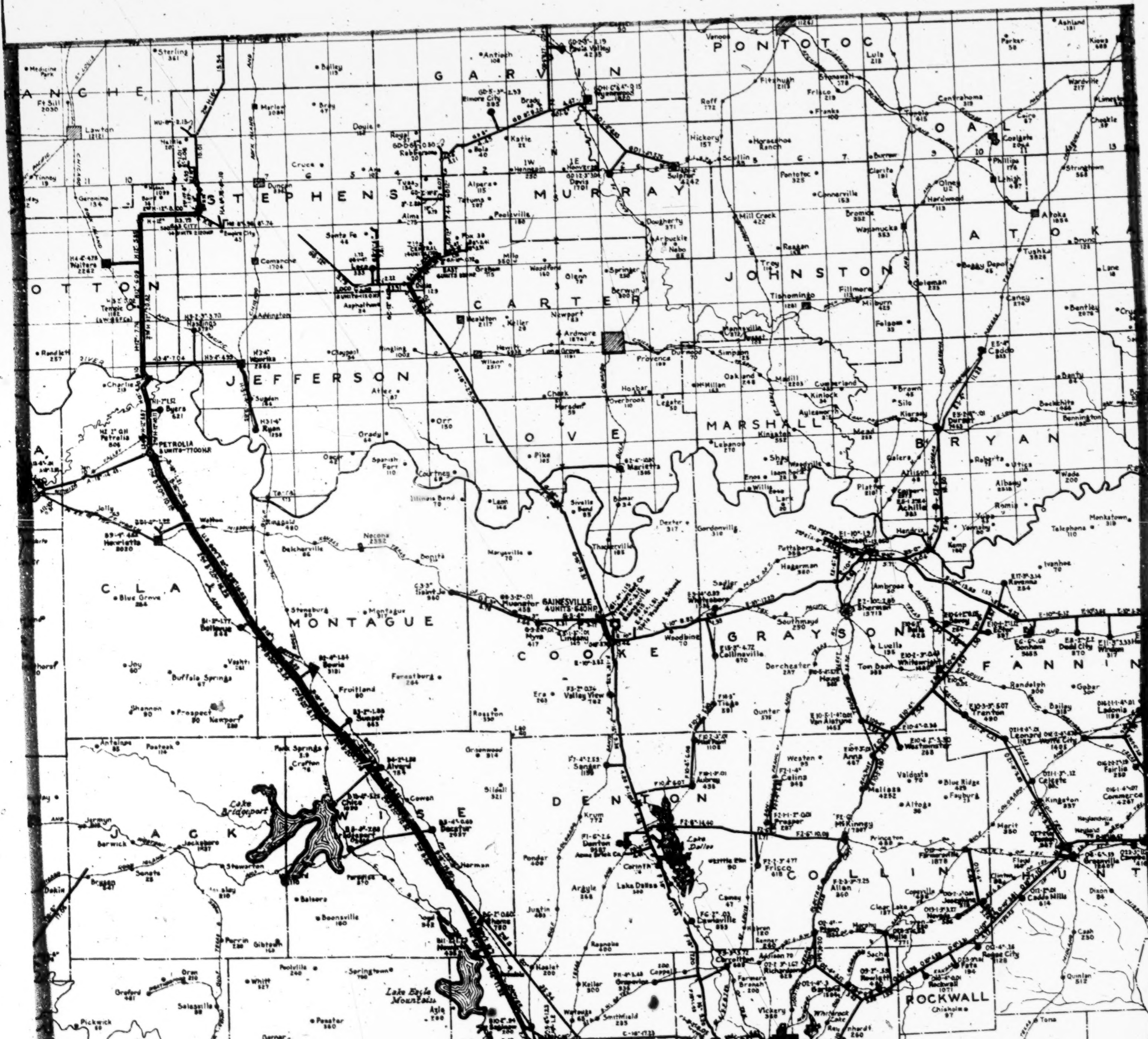
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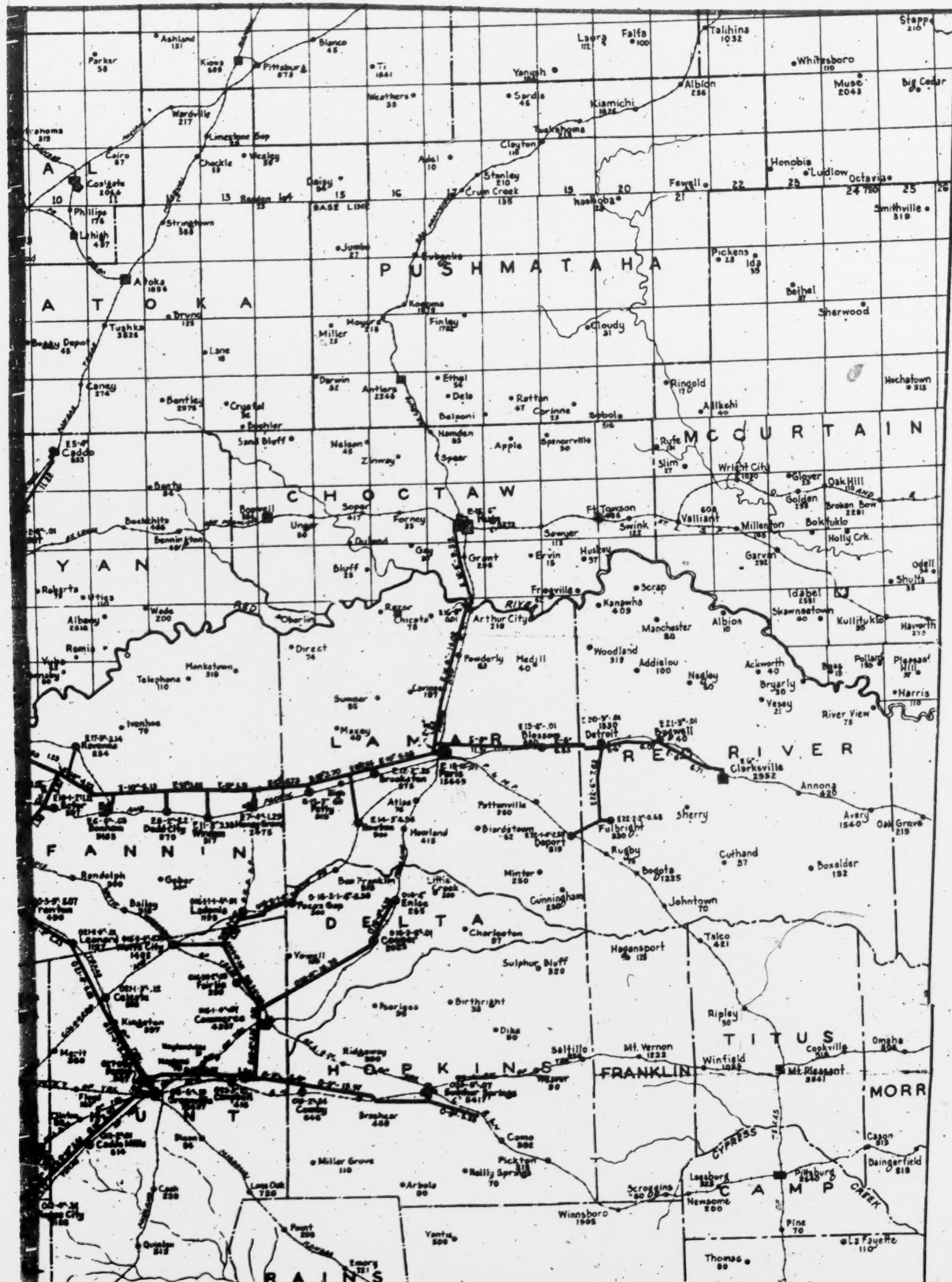


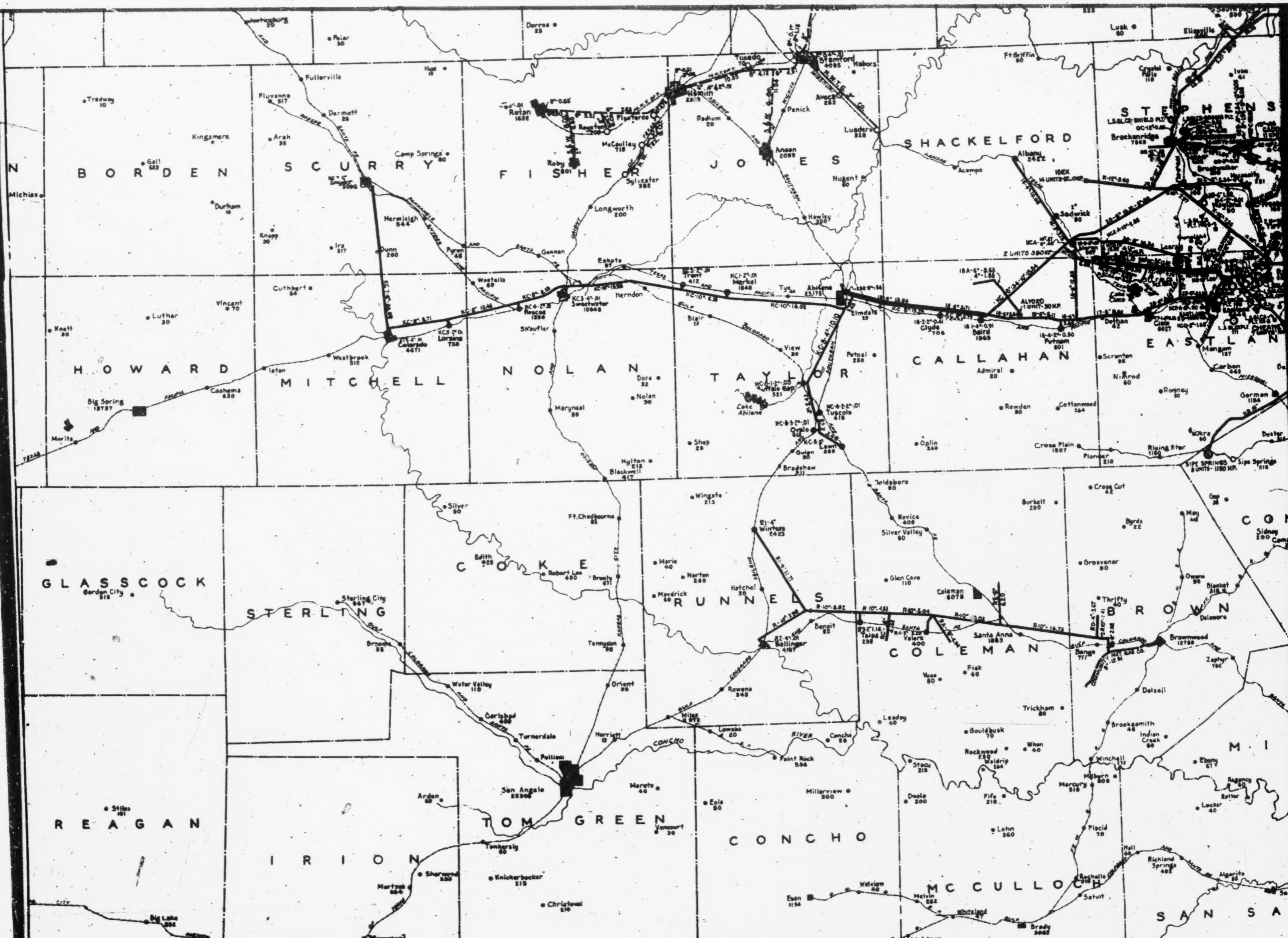


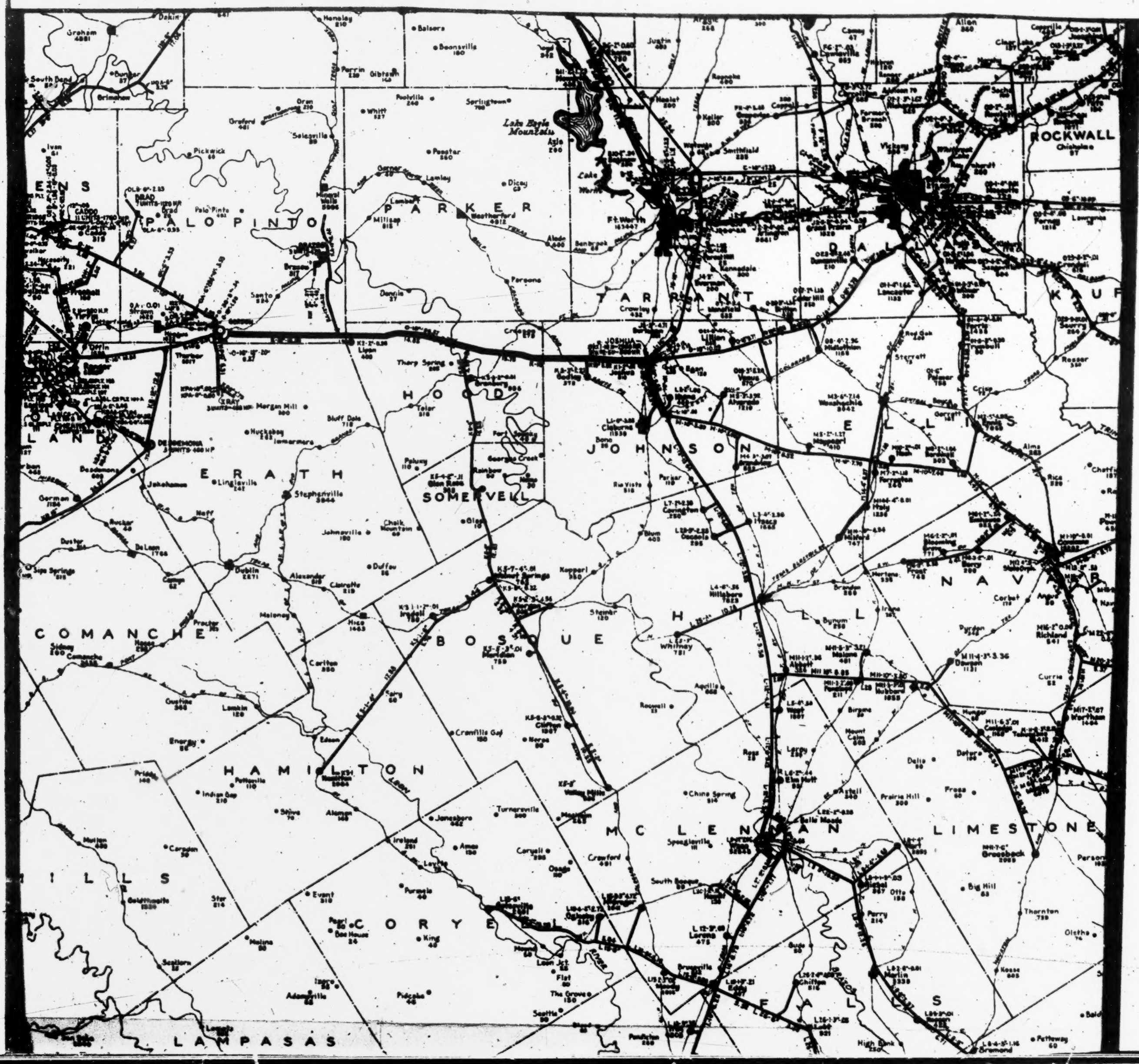


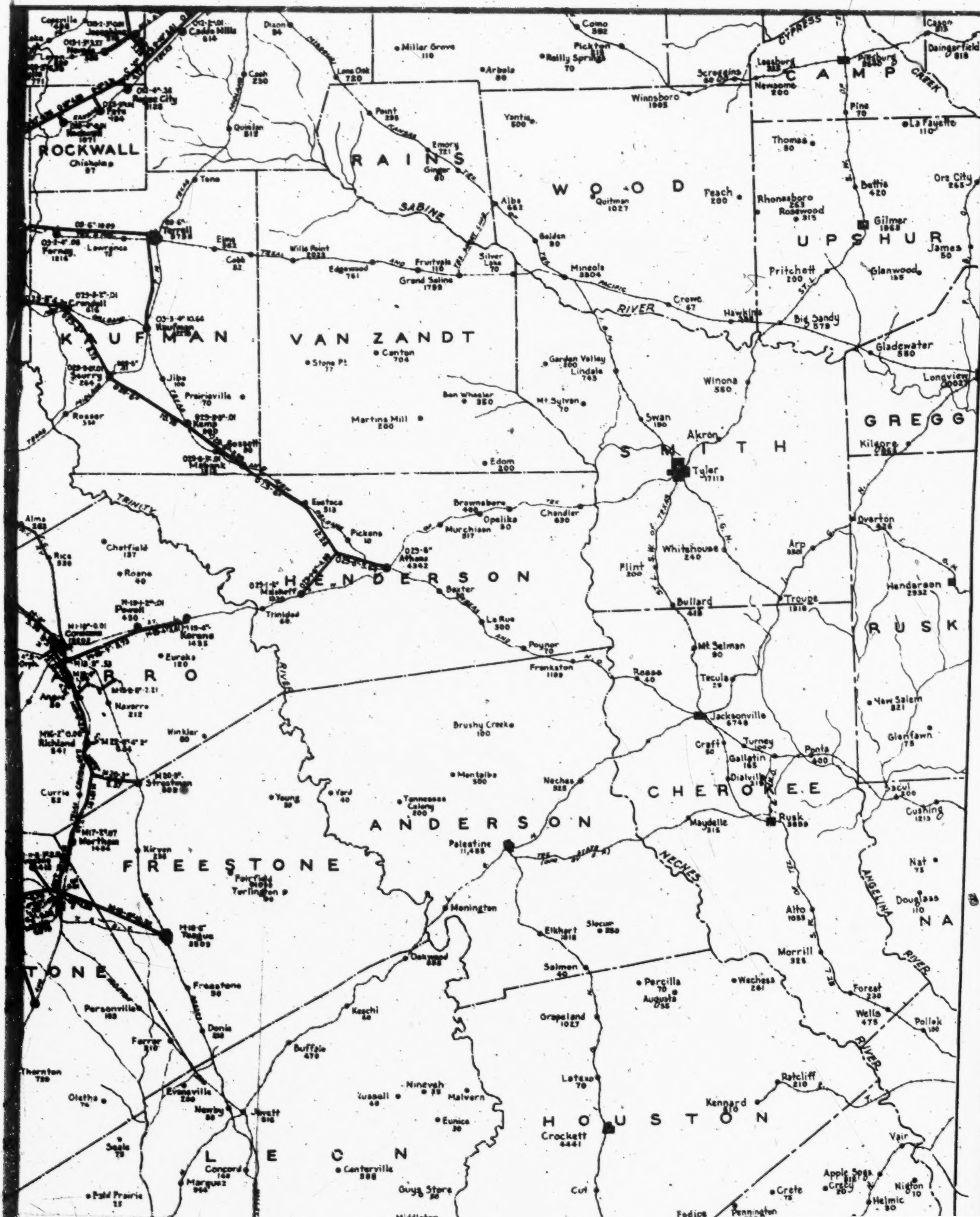


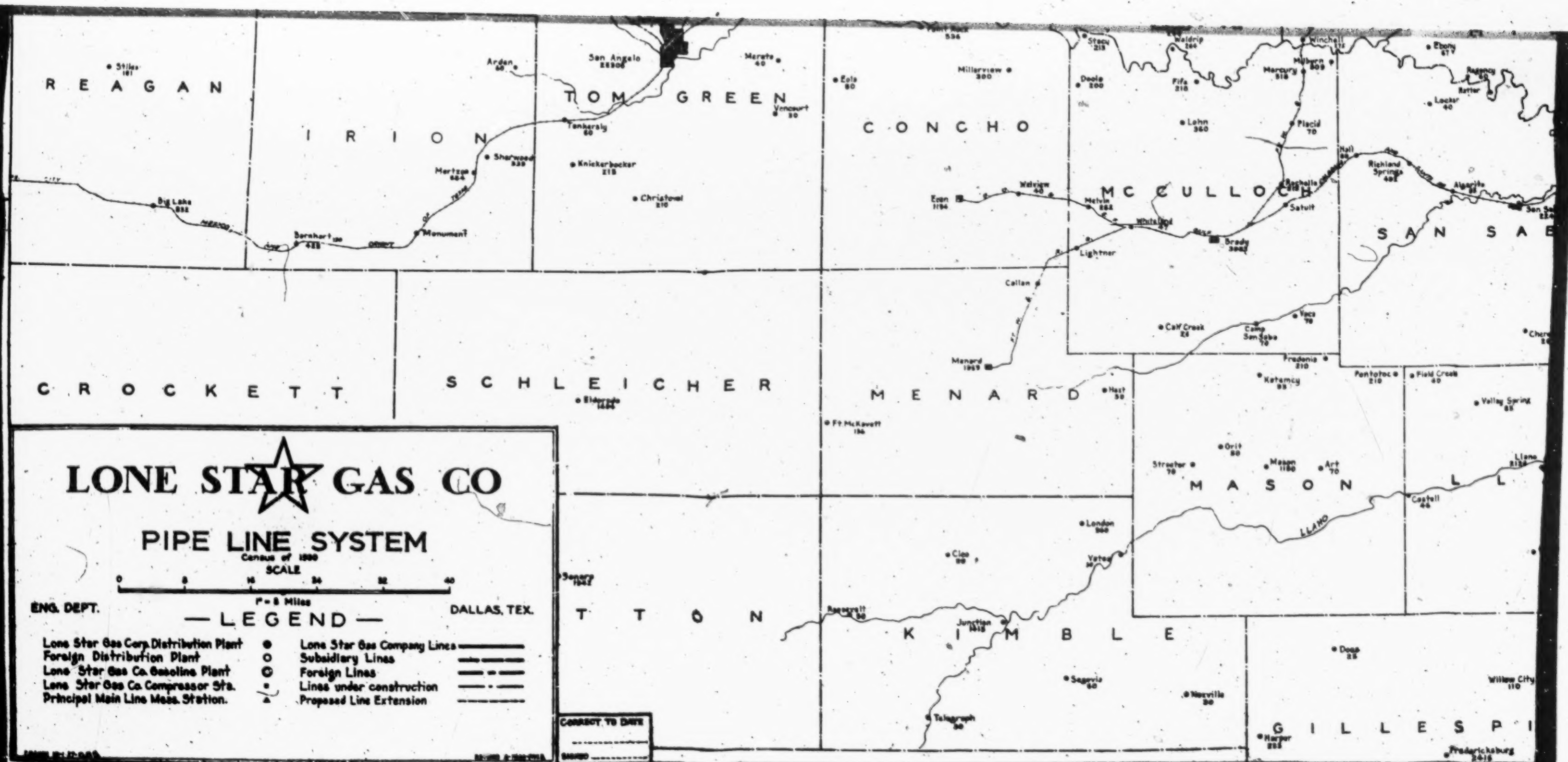


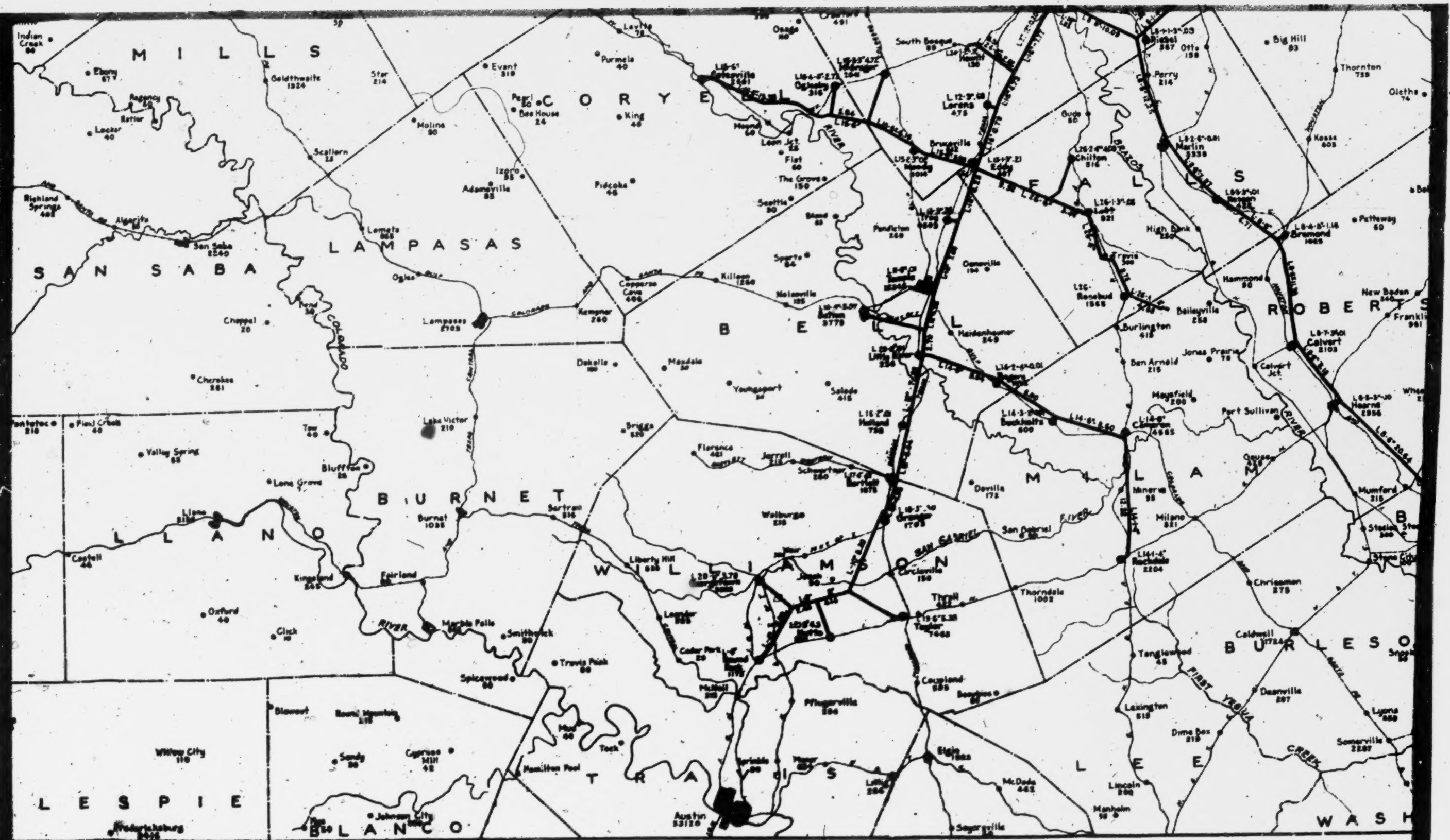


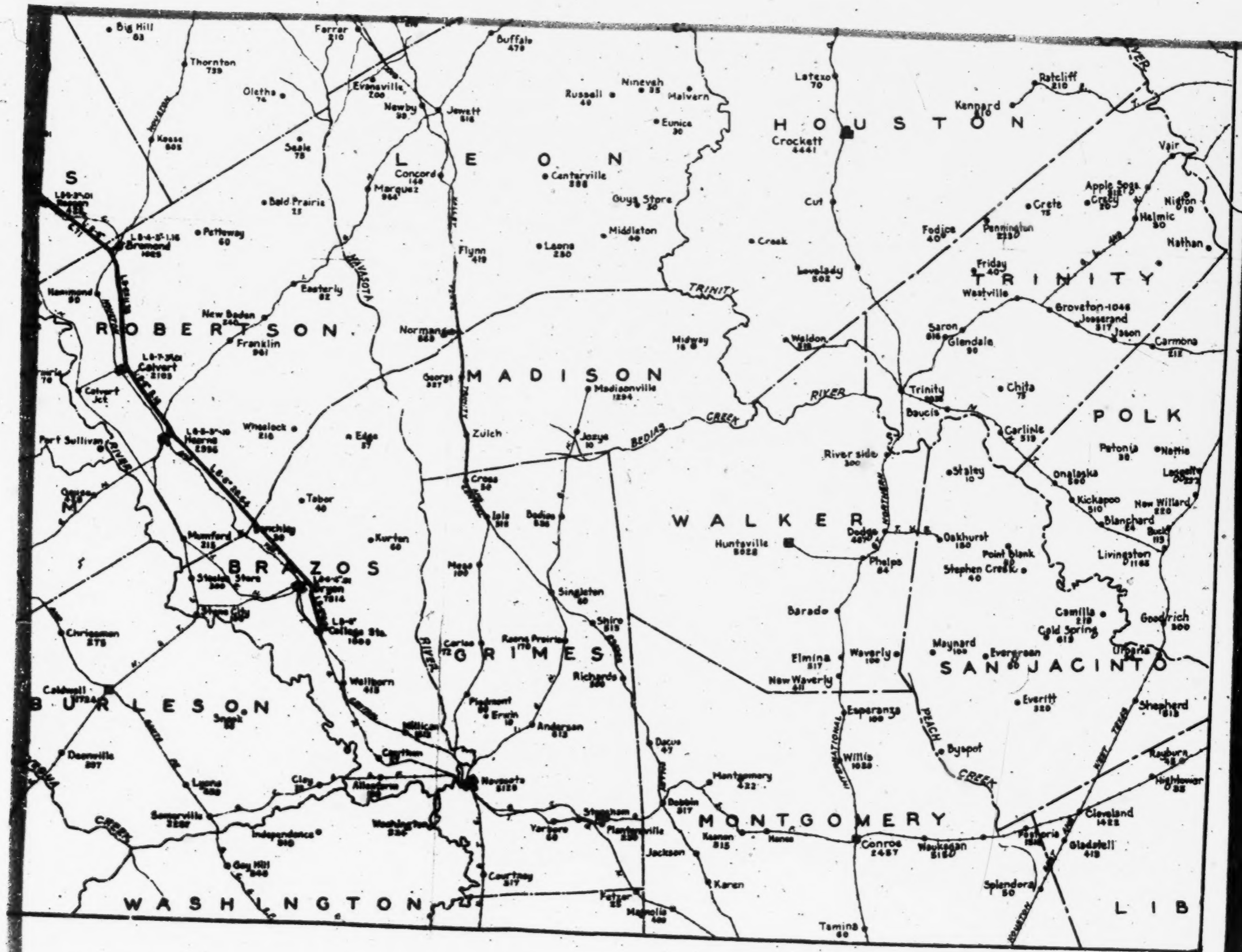












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[fols. 8611-8618] DEFENDANT'S EXHIBIT No. 30

Lone Star Gas Company

Report and Findings of Gas Reserves

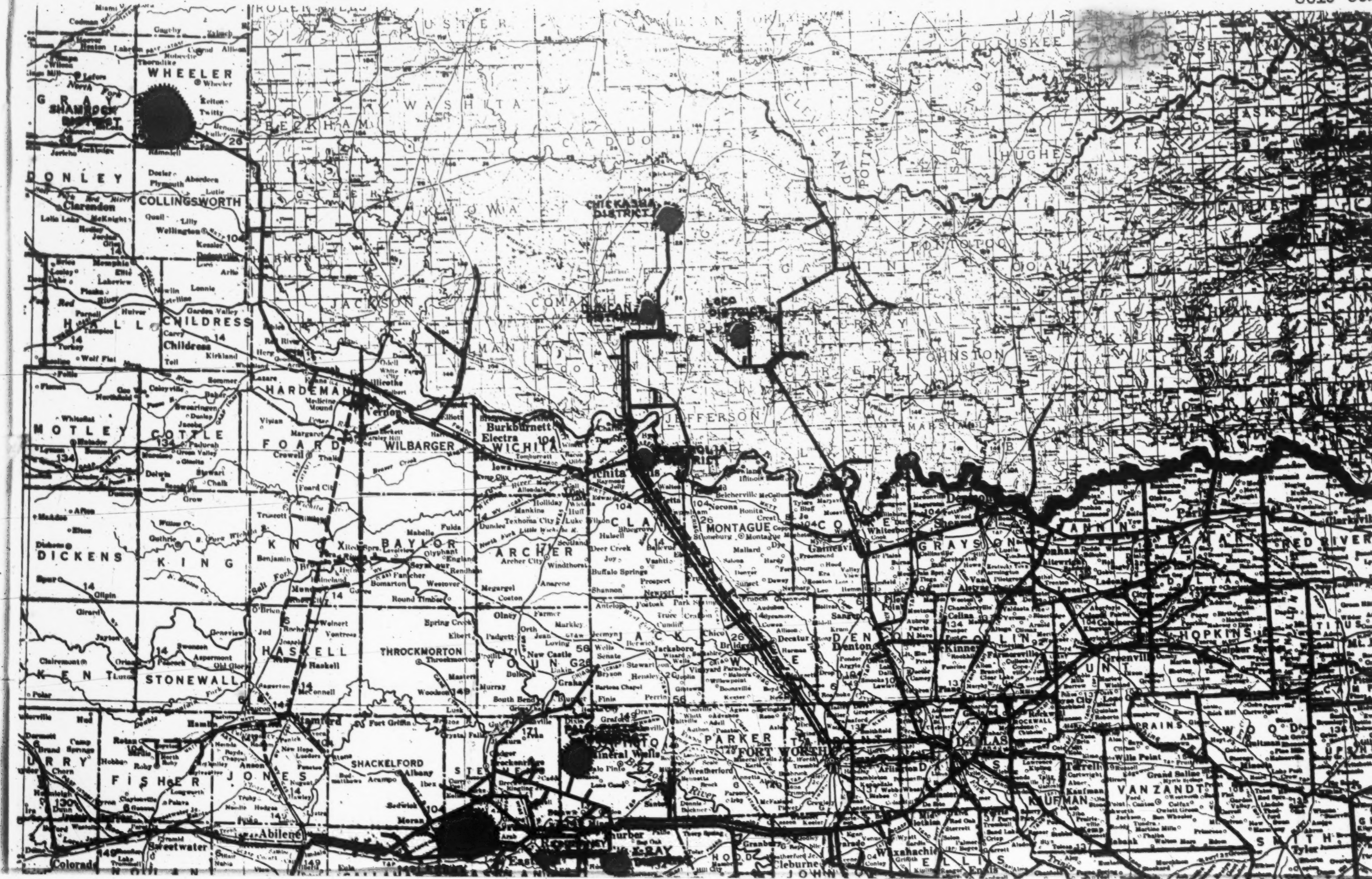
January 1, 1933

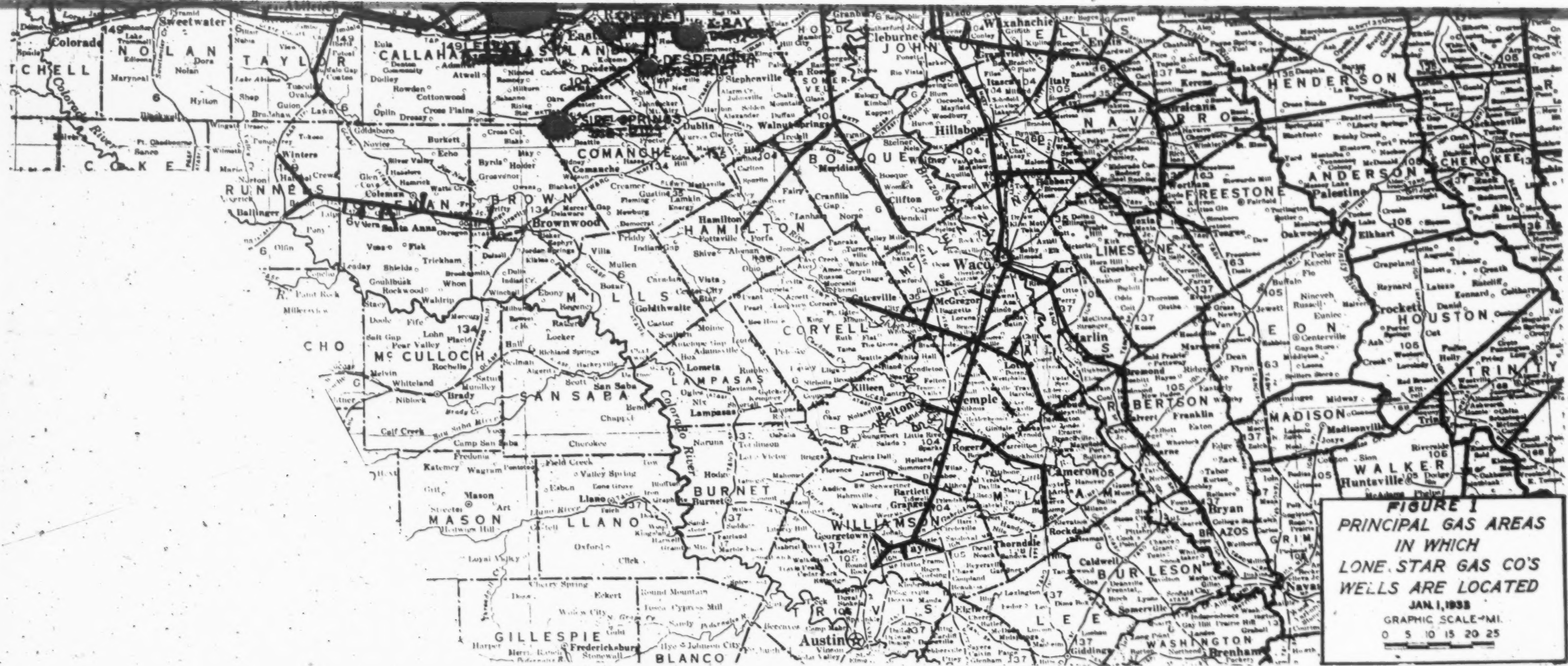
J. H. Dunn, Production Engineer; F. E. Kendrick, Geologist,
Dallas, Texas

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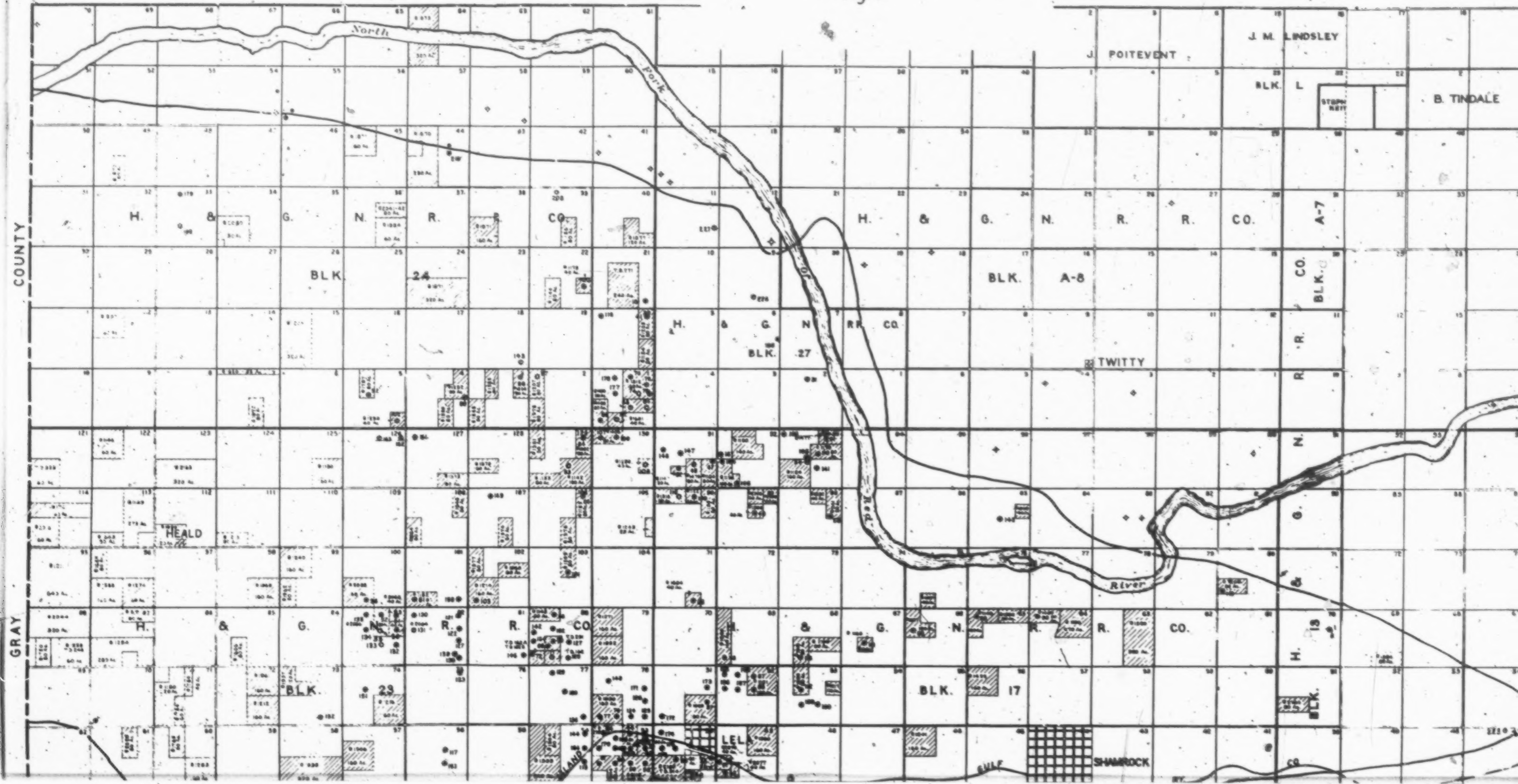
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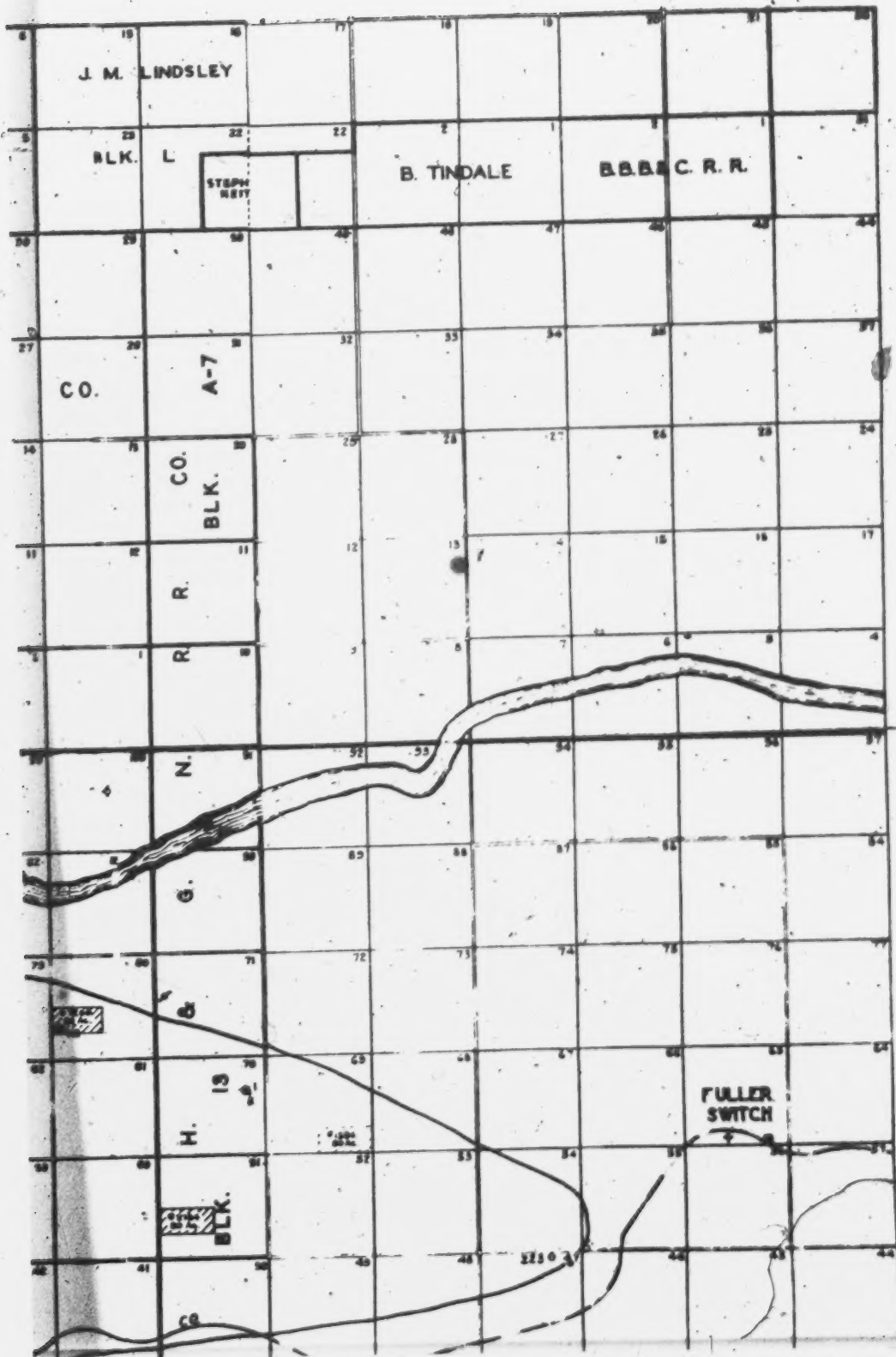
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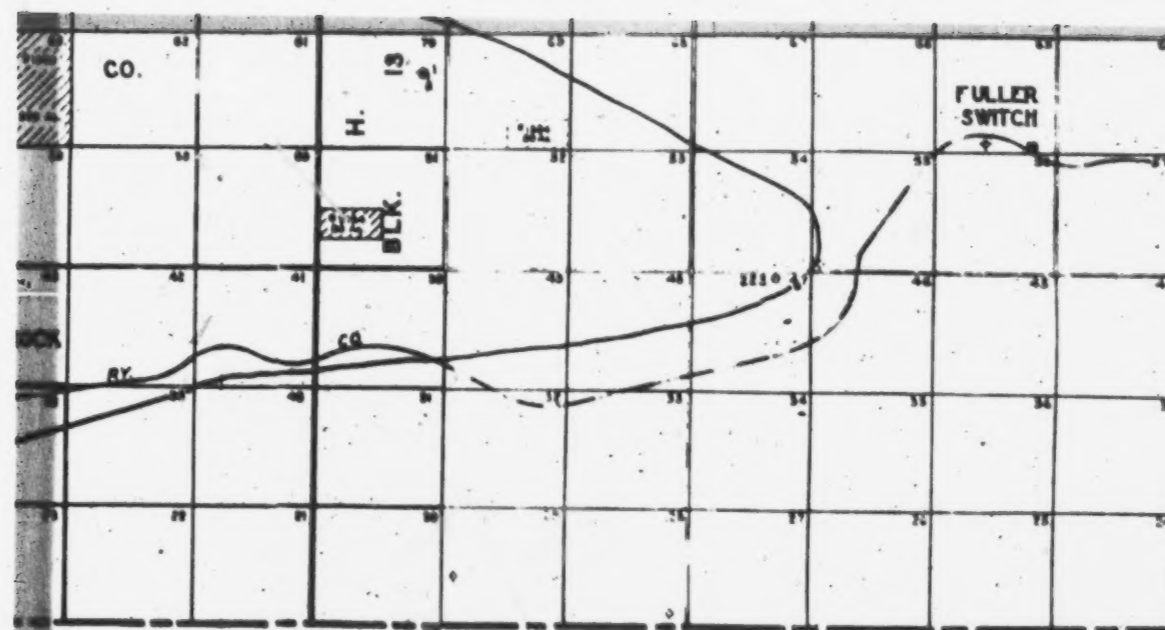




LONE STAR GAS CO.
SHAMROCK FIELD
WHEELER CO., TEXAS
PRODUCING AREA AND
LEASES AS OF JANUARY 1, 1933
Fig. 4

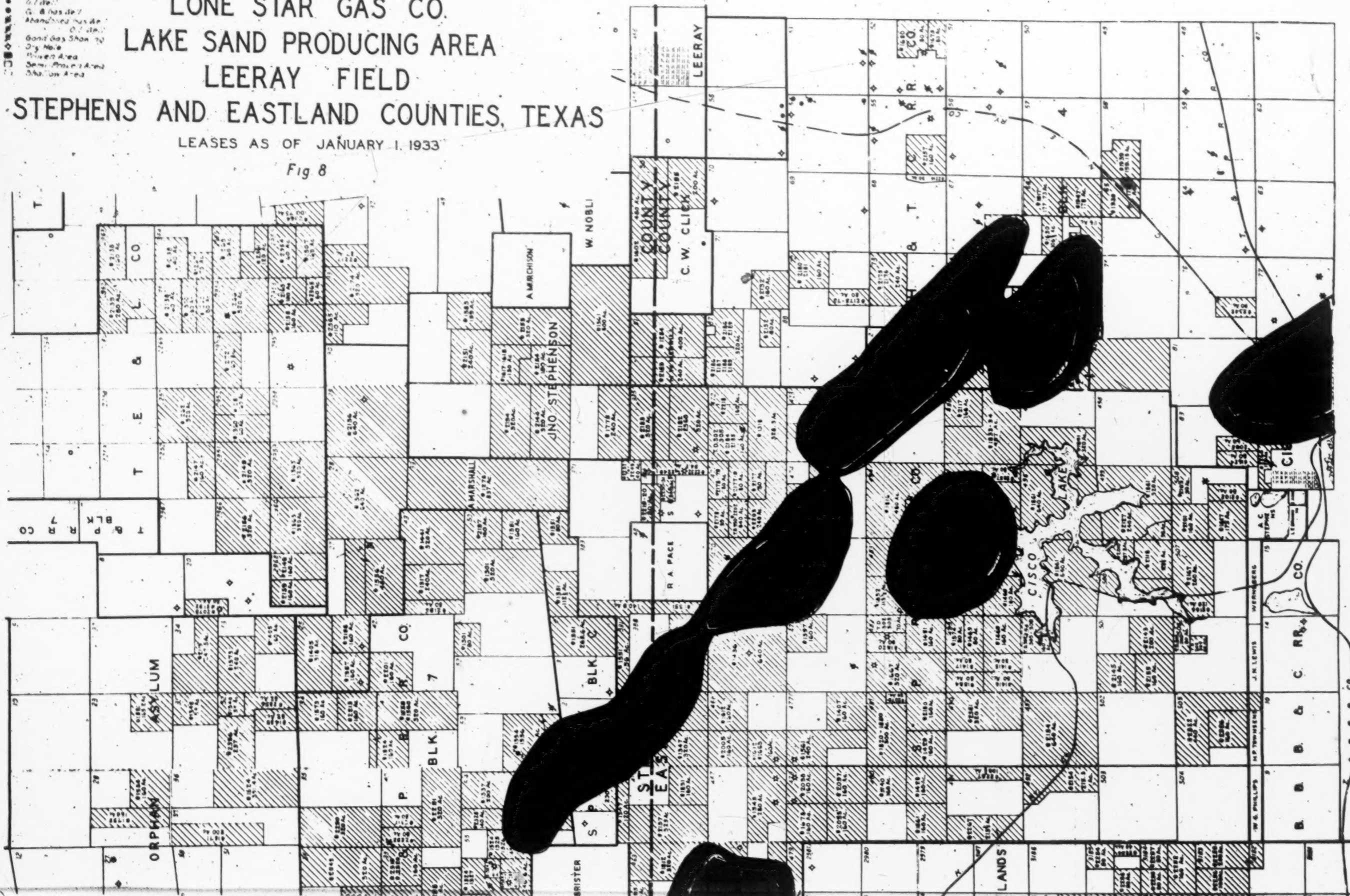


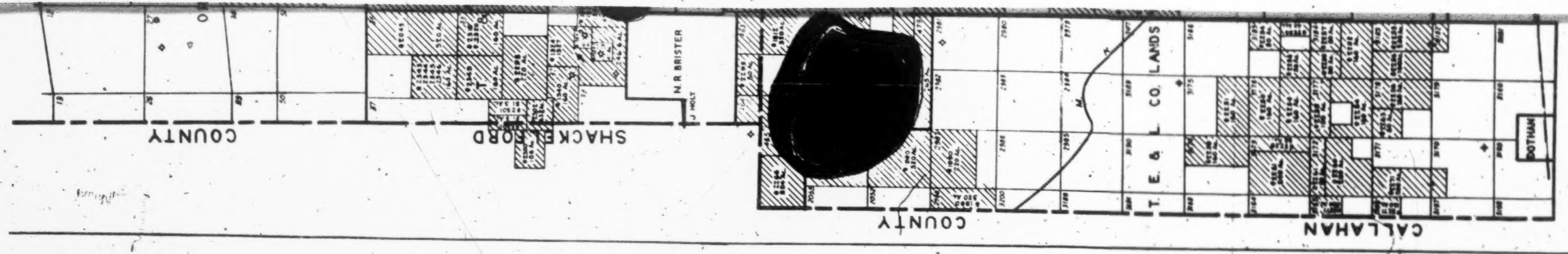




LONE STAR GAS CO.
LAKE SAND PRODUCING AREA
LEERAY FIELD
STEPHENS AND EASTLAND COUNTIES, TEXAS
LEASES AS OF JANUARY 1, 1933

Fig 8





Gas Well
Oil Well
Abandoned Gas Well
Gas Well Showing
Dry Hole
Proven Area
Semi-Proven Area
Shallow Area

LONE STAR GAS CO. BELOW LAKE SAND PRODUCING AREA LEERAY FIELD

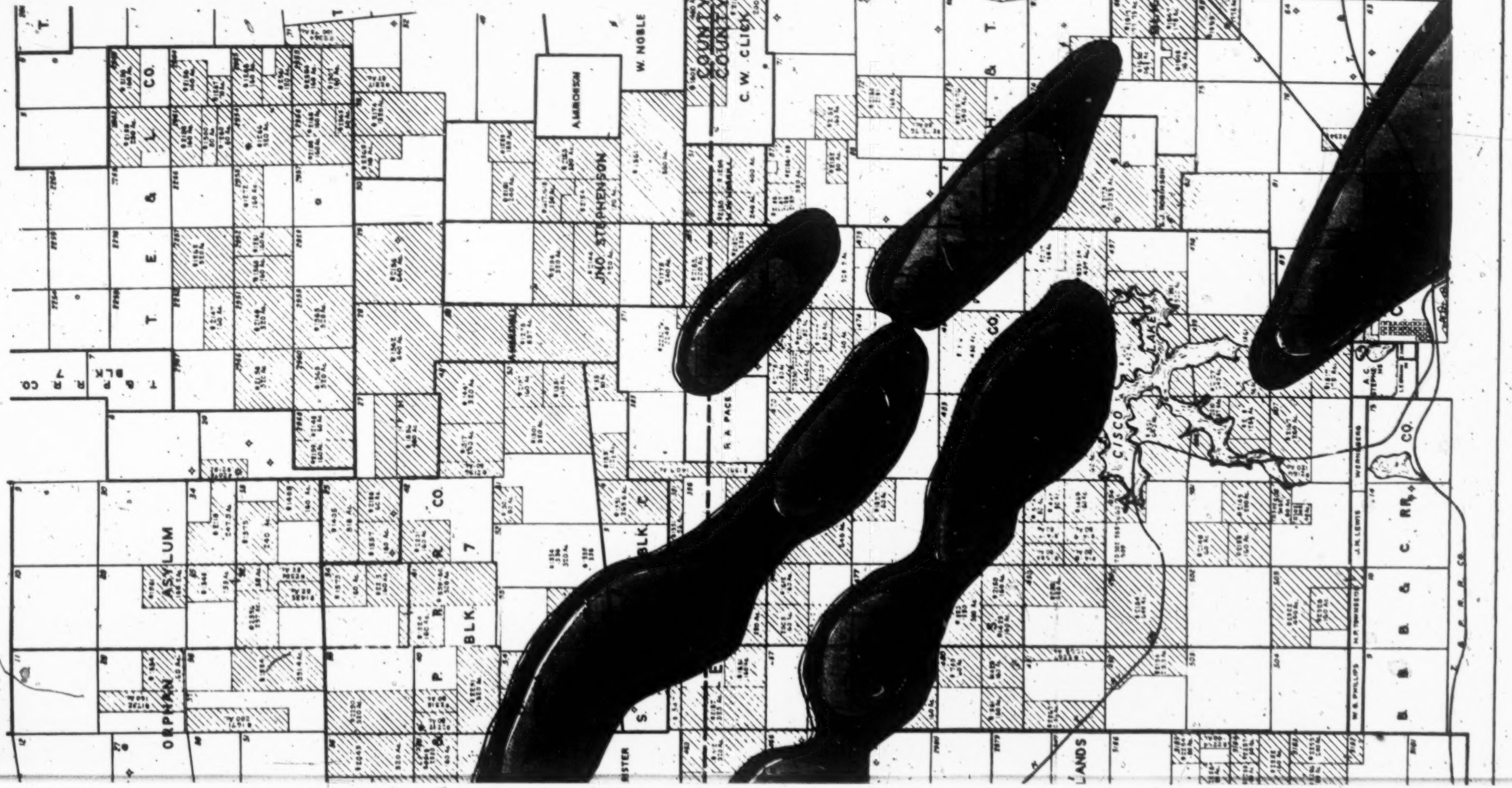
STEPHENS AND EASTLAND COUNTIES, TEXAS

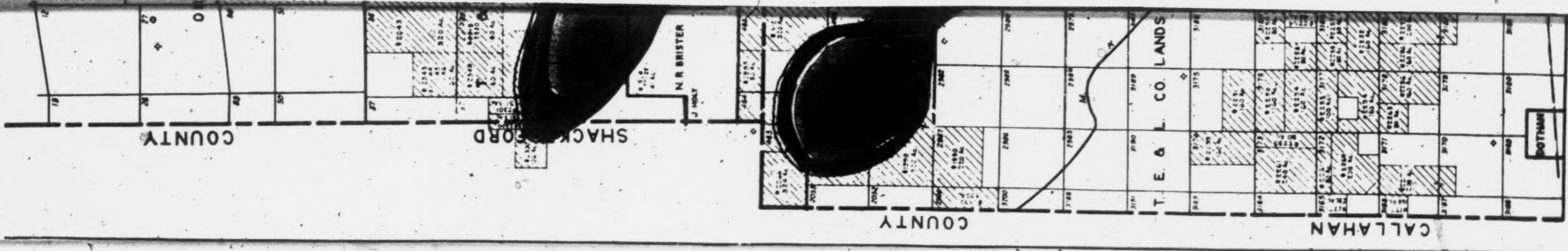
LEASES AS OF JANUARY 1, 1933

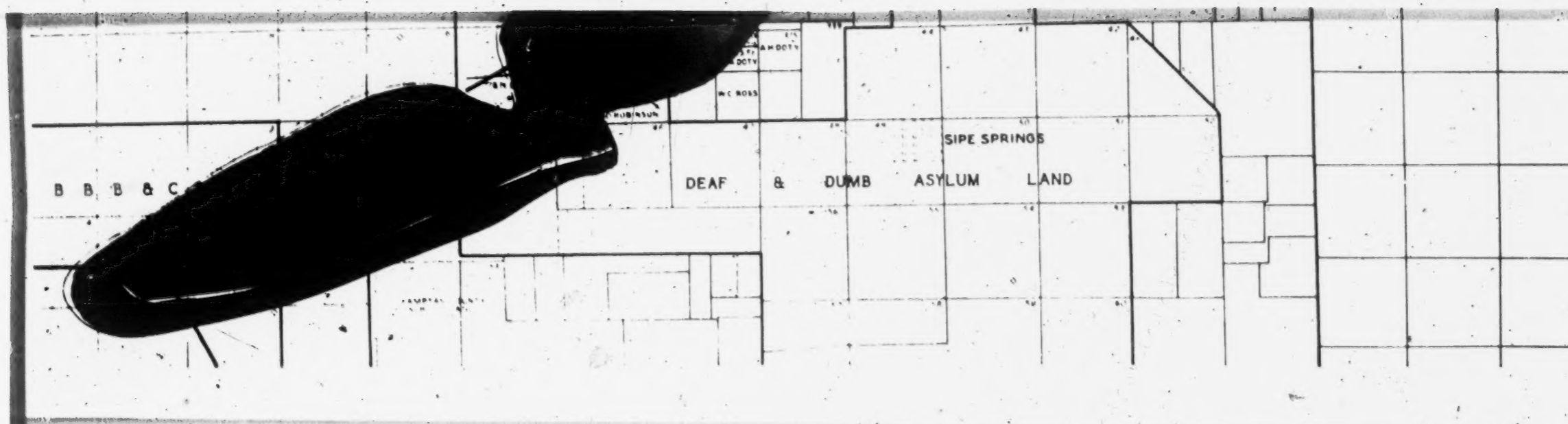
Fig. 9

8627-8629

8627





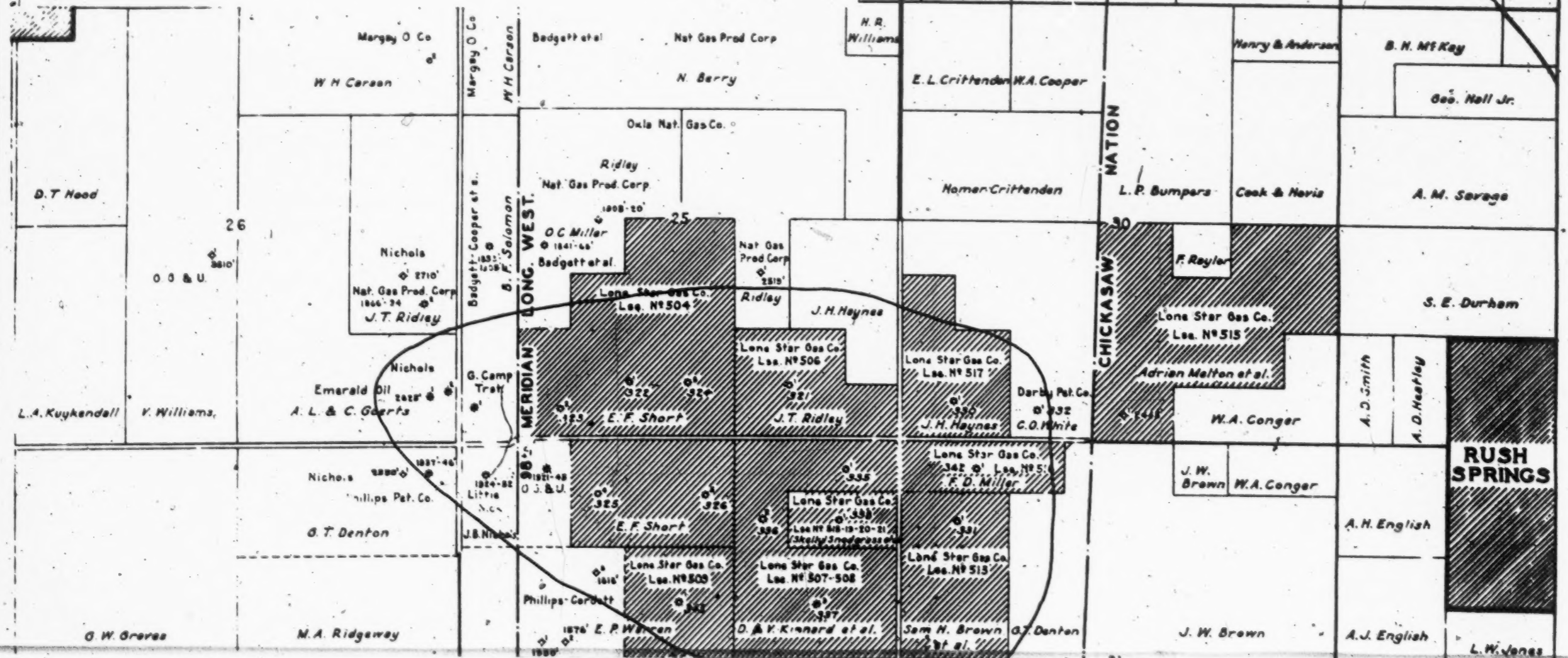


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LONE STAR GAS CO.
PRODUCING AREA SOUTH CHICKASHA FIELD.
GRADY COUNTY, OKLAHOMA.
LEASES AS OF JANUARY 1, 1933

Fig. 19



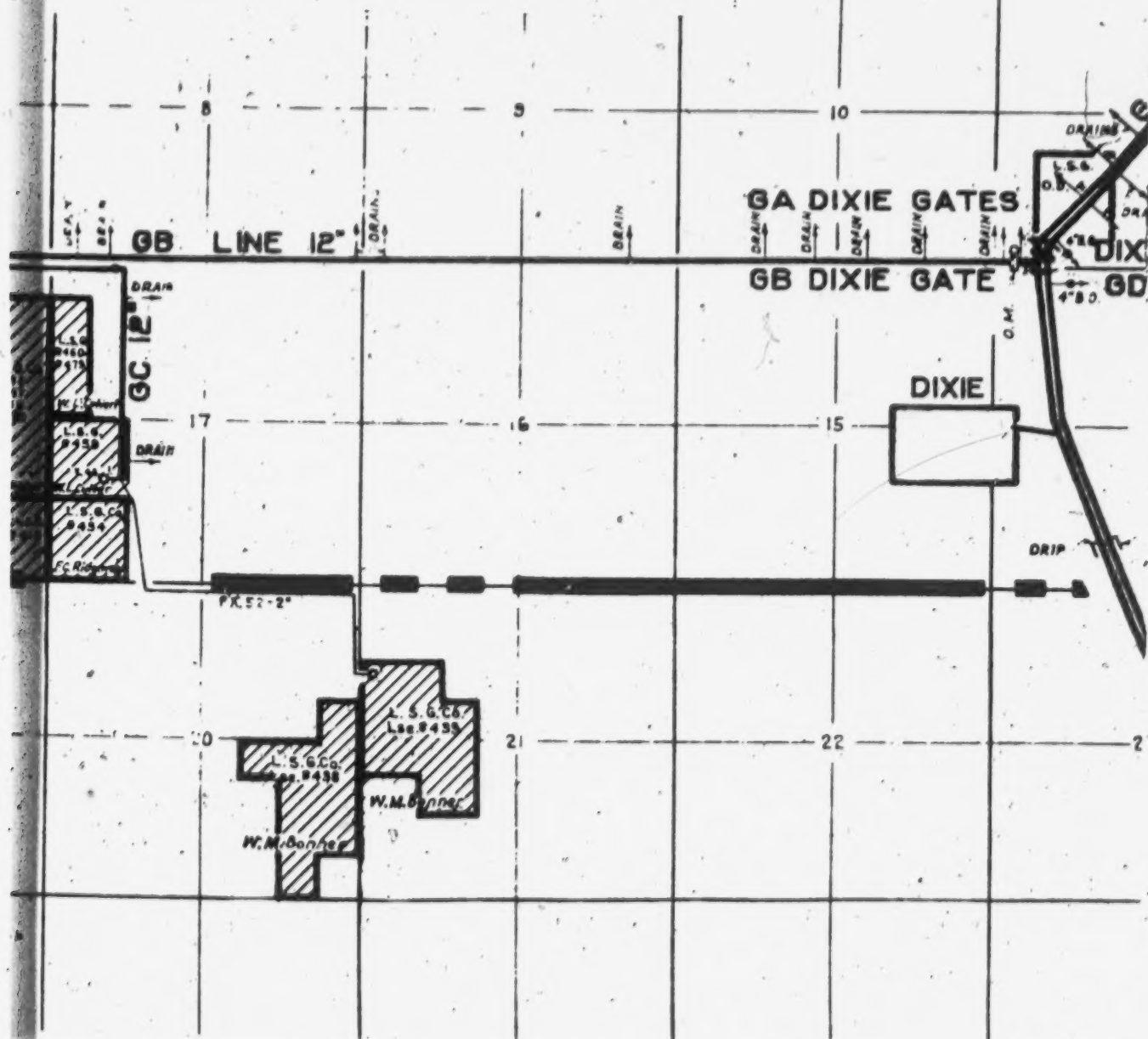
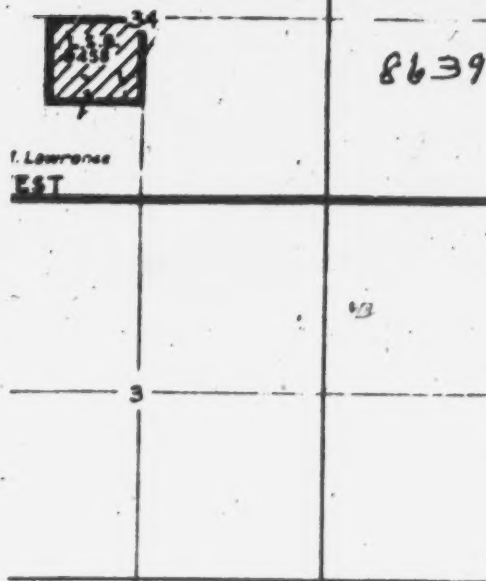
G. W. Greaves	M. A. Ridgeway	B. D. Jolly		Phillips-Cordatt 1616' 1880'	Lone Star Gas Co. Lea. No. 500	Lone Star Gas Co. Lea. No. 507-508	Lone Star Gas Co. Lea. No. 513	Sam H. Brown et al.	J. W. Brown	A. J. English	L. W. Jones
35	J. B. Nichols			1876' E. P. Warren 1880'	D. & K. Kinnard et al.	Lone Star Gas Co. Lea. No. 510	L. S. G. Co. Lea. No. 512	G. J. Denton	W. D. Ewing		
J. Baker J. Baker et al.	I. Millican			W. Gill et al.	S. C. Mayo	L. & G. Co. - Min. Pks. 3D-12 Lea. No. 505	B. M. Wharfer	A. Slaughter	W. S. Hall Jr.	S. H. Brown	L. W. Hawpe
				L. G. Meade	M. M. Mayo					A. H. English	

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COUNTIES, OKLA.

1, 1933



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Defendant's Exhibit No. 30—Continued

[fols. 8640-8651] Lone Star Gas Company

Natural Gas Reserves as of January 1, 1933

General Summary

	Lone Star Gas Company's Share M Cubic Feet (2# Base)	
Texas:		
1. Panhandle District	222,485,303	
2. Petrolia Field	1,975,851	
3. Leeray District	130,073,023	
4. Sipe Springs District	20,241,912	
5. Cheaney District	1,848,329	
6. Miscellaneous Wells	5,566,672	
Texas Total		382,191,090
Oklahoma:		
1. Chickasha District	2,277,356	
2. Duncan District	485,671	
3. Loco District	282,783	
4. Miscellaneous Wells	1,460,032	
Oklahoma Total		4,505,842
Grand Total		386,696,932

[fol. 8652]

	Depth Feet	Temperatures (Degrees F.)
Gray County, Texas	2,785	84.05
Young County, Texas	4,000	135.83
Young County, Texas	4,334	143.37

In calculating natural gas reserves it is not necessary to apply a correction for temperature to the reservoir pressure when the "Pressure-Volume Decline Method" is used, but a temperature correction should be applied to the pressure when the "Porosity-Area Method" is used. In the

former case the reserve is calculated on the basis of a known quantity of gas produced per pound pressure drop, and since the reservoir temperature remains constant, the quantity of gas per pound pressure drop remains the same. In the latter case, however, the reserve is calculated on the basis of the cubical content of the reservoir and a pressure base multiplication factor. This factor should take into consideration the effect on the reservoir pressure of the difference in the existing temperature and the base temperature.

Scope of Report

The Lone Star Gas Company's share of the natural gas reserves has been calculated only in those districts where production exists or where the leases are located in admittedly proven territory.

The summary of these reserves serves as a basis for valuation of those leases which are located in either of the [fols. 8653-8661] above classifications. There are, however, some leases of this company which are located in proven but undeveloped territory, and other located in likely, but as yet unproven, territory for which no reserves have been calculated. These leases are included in Table No. 1, which shows with respect to these leases, the "Lone Star Acre Interest for which no Reserve has been Calculated". In order then to evaluate the Lone Star Gas Company's leaseholds as of January 1, 1933, it is necessary to place a value on the acreage for which no reserve has been calculated in addition to the value of the calculated reserves.

[fol. 8662]

Petrolia Field

Clay County, Texas

Summary of Reserves

	Reserves M Cubic Feet (2# Base)
Petrolia Field Proper	1,446,930
Miller Farm	528,921
Total Lone Star Gas Company's Marketable Reserves in the Petrolia District	1,975,851

[fol. 8663] Petrolia Gas Field, Clay County, Texas

Introduction

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Structurally, the Petrolia field is a well defined dome, being one of several domes located on what is called the Red River arch, a major structural feature of the Mid-Continent. This dome is very well defined by a closed surface structure that is highly accentuated in the sub-surface.

The most important gas production in Petrolia field has been found at depths of approximately 1300 to 1750 feet in sands belonging to the Cisco beds of Pennsylvanian age. These sands are more or less lenticular and as a consequence the field has been somewhat spotted. Formations [fol. 8664] below the Pennsylvanian have not been tested, except by one well, and it was too low, structurally, to be expected to produce. So far as the Permian and Pennsylvanian formations are concerned, the field is considered drilled up for gas and all reserve gas in these two formations can probably be obtained from present existing wells. All of this reserve gas is either owned or controlled by Lone Star Gas Company.

[fol. 8665] Petrolia District, Clay County, Texas

In order to calculate the reserve of gas to be produced from the Lone Star Gas Company's wells in this district, two calculations have been made; one for all of the wells except those on the Miller Farm, and one for the Miller wells. The first division is designated "Petrolia Field Proper", and the other, "Miller Wells."

This distinction is made in view of the fact that the Miller Farm was, on July 6, 1929, adapted to use for storing and returning gas from the main line to the natural reservoir, and back at later periods, through the field suction lines. Accurate measurement data for this gas, both in and out of storage, are available.

In the calculation of the gas reserve for this field, no significance is attached to the gas storage operations. The reserve for the Miller Farm Wells is calculated from the rates of delivery from these wells prior to the beginning of storage operations. The reserve under this acreage will still be available to be produced at some later date.

Petrolia Field Proper

There are thirty-eight wells delivering gas from this division of the Petrolia District. These wells have been on continuous operation for years, and consequently there are [fols. 8666-8667] no maximum shut-in pressure data available to be used in the calculation of reserves. The most accurate method to be applied in the calculation of the reserve to be produced after January 1, 1933, is to calculate the reserve from the delivery decline curve. Such a curve (Figure 5) has been plotted and shown herewith. A continuation of this curve is made from January 1, 1933, down to the point where the amount of gas produced will likely not justify the continued operation of the wells.

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[fols. 8668-8669]

Petrolia District

Miller Wells

Reserves

As stated earlier in this report, the Miller Farm was adapted to the underground storage of gas on July 6, 1929. At that time the lease was delivering gas at the rate of 343.1 M cubic feet per day, and had an available reserve, which reserve is here calculated by applying the same decline factor as was used for "Petrolia Field Proper". That reserve is still available to be produced, which fact is thoroughly established by the data from storage operations.

It is then apparent that the reserve under the Miller Farm was at least as great on January 1, 1933, as it was on July 6, 1929.

The available decline in daily delivery rate from this lease is determined by assuming that its operations would cease with the rest of the field.

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Defendant's Exhibit No. 30—Continued

[fols. 8670-8705] Leeray District

Eastland and Stephens Counties, Texas

Summary of Reserves

	Reserves M Cubic Feet (2# Base)
Shallow Sand:	
Shallow Area No. 1	3,053,026
B. P. Cozart No. 2 Area	837,433
R. Elliott No. 2 Area	515,440
Lake Sand and Below Lake Sand:	
Brooks Pool	19,324,880
Chesley Pool	2,510,815
Dyer Pool	14,344,928
Fee Pool	16,046,369
Grove Pool	30,083,502
Hitson Pool	8,510,529
League Pool	7,058,714
Storm Pool	24,976,149
Ward Pool	2,811,238
Total of Lone Star Gas Company's Marketable Reserves in Leeray District	130,073,023

[fols. 8706-8711] Sipe Springs District

Eastland and Comanche Counties, Texas

Summary of Reserves

	Reserves M Cubic Feet (2# Base)
Certral Area (Proven and semi-proven)	6,073,681
North Area (Proven and Semi-proven)	9,828,426
South Area (Proven and semi-proven)	4,339,805
Total of Lone Star Gas Company's Marketable Reserves in Sipe Springs District	20,241,912

Defendant's Exhibit No. 30—Continued

[fols. 8712-8716] Cheaney District

Eastland County, Texas

Summary of Reserves

	Reserves M Cubic Feet (2# Base)
Cheaney Field Proper	1,758,875
M. E. Lee Area:	89,454
<hr/>	
Total of Lone Star Gas Company's Marketable Reserves in the Cheaney District	1,848,329

[fols. 8717-8735] Miscellaneous Wells

Texas

Summary of Reserves

	Reserves M Cubic Feet (2# Base)
A. C. Anderson No. 3	37,028
W. H. Belding No. 1	43,241
J. L. Brashears No. 2	22,971
H. Compton No. 1	1,578,726
M. F. Cox No. 1	935,800
A. L. Duffer No. 6	492,666
D. N. Ellis No. 2	271,923
J. D. Fite No. 1 }	70,769
S. A. Dosser No. 1 }	
J. H. Goswick No. 1	580,358
M. H. Hagaman No. 6	201,236
N. B. Lyle No. 1	28,358
J. A. Thompson No. 1	1,303,596
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Total of Lone Star Gas Company's Marketable Reserves from the Texas Miscellaneous Wells	5,566,672

Defendant's Exhibit No. 30—Continued

[fols. 8736-8741] Chickasha District

Grady County, Oklahoma

Summary of Reserves

	Reserves M Cubic Feet (2# Base)
North Chickasha Field.....	1,087,886
South Chickasha Field.....	1,189,470
<hr/>	
Total of Lone Star Gas Company's Marketable Reserves in the Chickasha District	2,277,356

[fol. 8742]

Duncan District

Stephens County, Oklahoma

Summary of Reserves

	Reserves M Cubic Feet (2# Base)
Clarkson Area	411,499
Williams Area	74,172
<hr/>	
Total of Lone Star Gas Company's Marketable Reserves in the Duncan District	485,671

[fols. 8743-8746]

Duncan Gas Area

Stephens County, Oklahoma

Introduction

Due to the fact that the fields, in which the Lone Star Gas Company leases are located, are considered fully developed, at present producing depths, it is not necessary to discuss structural conditions in this report. The fields have already passed their production peaks and are, of course, on the decline.

Defendant's Exhibit No. 30—Continued

[fol. 8747]

Loco District

Stephens County, Oklahoma

Summary of Reserves

	Reserves M Cubic Feet (2# Base)
Loco Field Proper	282,783
Total of Lone Star Gas Company's Marketable Reserves in the Loco District.	282,783

[fol. 8748]

Loco Gas Field

Introduction

The Loco gas field is situated in the southeastern part of Stephens County, Oklahoma. Most of this field lies in Sections 8, 9, 10, 14, 15, and 16, Township 3 South, Range 5 West.

[fols. 8749-8750] It may be said that the Loco field is "drilled up" and the possibility of further prospecting for gas is slight.

[fols. 8751-8757]

Miscellaneous Wells

Oklahoma

Summary of Reserves

	Reserves M Cubic Feet (2# Base)
Arnold and Mercer No. 1 } Ben Richardson No. 1 }	879,135
W. M. Bonner No. 1	454,991
W. L. Culver No. 1	18,785
A. E. Harp No. 3	107,121

Total of Lone Star Gas Company's Marketable Reserves from the Oklahoma Miscellaneous Wells 1,460,032

[fol. 8758] Additional Wells Necessary to be Drilled to
Recover Present Reserves

It is estimated that the following number of wells will complete the development for all leases for which the gas reserves have been determined:

1. Shamrock Field (Wheeler County, Texas)	86
2. Petrolia Field (Clay County, Texas)	
3. Leeray Field (Eastland, Stephens Counties, Texas) 38 Wells Gross—Lone Star Gas Company's In- terest	31
4. Sipe Springs Field (Comanche, Eastland Counties, Texas)	18
5. Cheaney Field (Eastland County, Texas)	
6. Miscellaneous Wells, Texas	
7. Chickasha Field (Grady County, Oklahoma)	
8. Duncan Field (Stephens County, Oklahoma)	
9. Loco Field (Stephens County, Oklahoma)	
10. Miscellaneous Wells, Oklahoma	
 Total Wells	 135

[fol. 8759] The total natural gas reserves of the Lone Star Gas Company pertaining to certain developed and proven acreage has been found to be 386,696,932 M cubic feet. This amount of gas represents the total volume which now is contained in the various gas reservoirs between the present reservoir pressure and an assumed abandonment pressure.

We have shown that 135 additional wells will need to be drilled in order to produce this entire reserve. There will be some loss of gas at the completion of these wells. The total amount of gas which will be lost in this manner undoubtedly will be negligible in comparison to the total volume of gas reserves.

The Lone Star Gas Company's method of handling producing gas wells is such that very little gas is wasted in the operation of the wells. Likewise the total amount of gas lost from operation will also be negligible in comparison to the total volume of gas reserves.

An allowance of five per cent of the total volume of gas reserves has been made which, in our opinion, will amply provide for all gas which may be wasted or lost during the

Defendant's Exhibit No. 30—Continued

remaining period of time required for the withdrawal of the total reserves as determined.

[fol. 8760]

Lone Star Gas Company

Marketable Gas Reserves (Net)

As of January 1, 1933

	Lone Star Share of Reserves M Cu. Ft. (2% Base)	Lone Star Share of Reserves Less 5% M Cu. Ft. (2% Base)
Texas		
Shamrock Field	222,485,303	211,361,038
Petrolia Field	1,975,851	1,877,058
Leeray Field	130,073,023	123,569,372
Sipe Springs Field	20,241,912	19,229,816
Cheaney Field	1,848,329	1,755,913
Miscellaneous Wells	5,503,672	5,288,338
Oklahoma		
Chickasha Field	2,277,356	2,163,488
Duncan Field	485,671	461,387
Loco Field	282,783	268,644
Miscellaneous Wells:		
Arnold & Mercer No. 1 }	879,135	835,178
Ben Richardson No. 1 }		
Bonner No. 1	454,991	432,241
Culver No. 1	18,785	17,846
Harp No. 3	107,121	101,765
Total	386,696,932	367,362,084

Defendant's Exhibit No. 30—Continued

[fols. 8761-8764]

Ownership and Distribution of Present Development

As of January 1, 1933

	Lone Star Wells	Lone Star Working Interest in Wells
Texas		
Shamrock.....	78	78.0000
Petrolia.....	46	46.0000
Leeray.....	50	47.1875
Sipe Springs.....	8	8.0000
Cheaney.....	18	18.0000
Miscellaneous Wells.....	13	12.2500
Texas Total.....	213	209.4375
Oklahoma		
Chickasha.....	41	41.0000
Duncan.....	8	8.0000
Loco.....	5	5.0000
Miscellaneous Wells.....	5	4.0000
Oklahoma Total.....	59	58.0000
Grand Total.....	272	267.4375

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Defendant's Exhibit No. 30—Continued

[Iola. 8765-8771]

Table No. 1

Leases and Deeds Owned by the Lone Star Gas Company as of January 1, 1933

Lease Number	County	Total Acres	Texas				Acres Interest for Which No Reserve Has Been Calculated	Acres Interest for Which Reserve Has Been Calculated	Acres Interest for Which No Reserve Has Been Calculated
			Lone Star Interest	Lone Star Interest	Lone Star Interest	Lone Star Interest			
246	Clay	10.0	.875	.875	.875	.875	8.8	8.8	
....
[Iola. 8772-8798]									
1436	Eastland	640.0	.875	.875	.875	.875	397.0	397.0	163.0
....
[Iola. 8799]									
Grand Total—Texas		174,398.4					146,404.0	47,256.0	99,148.0
[Iola. 8900-8904]									
8	Stephens	60.0	.875	.875	.875	.875	52.5	52.5	52.5
....
[Iola. 8905-8937]									
Grand Total—Oklahoma		9,923.4					7,923.1	2,202.4	5,600.7
Grand Total—Oklahoma and Texas		184,321.8					154,327.1	49,518.4	104,908.7

[fols. 8858-8359] DEFENDANT'S EXHIBIT No. 31

Lone Star Gas Company
Appraisal of Gas Reserves

January 1st, 1933

[fol. 8860] Present Fair Value of Net Gas Reserves

January 1st, 1933

Estimated Gross Withdrawal Value (Schedule #1)		\$19,451,614
Cost of Recovery:		
Future Developing Costs (Schedule #2)	\$2,658,619	
Recovery Operating Costs (Schedule #3)	1,237,661	
Total	\$3,896,280	
Less: Estimated Salvable Value of Gas Well Equipment (Schedule #4)	499,958	
Net Cost of Recovery		3,396,322
Estimated Net Recovery Value of Gas Reserves		\$16,055,292
Present Worth Factor		.46319
Present Fair Value of Gas Reserves Including Gas Well Equipment and Construction		\$7,436,650
Less:		
Gas Well Equipment and Construction as Shown in Appraisal dated Jan. 1st, 1933	\$3,894,317	
Overheads applicable to Gas Well Equipment and Construction and Included in Appraisal dated Jan. 1, 1933	860,644	4,754,961
Present Fair Value of Net Gas Reserves		<u>\$2,681,689</u>

Defendant's Exhibit No. 31—Continued

[fol. 8861]

Summary of Net Gas Reserves and Gross Value

January 1st, 1933

(Schedule #1)

District	Net Gas Reserves M. Cu. Ft.	Unit Value	Gross Value
Texas			
Panhandle.....	211,361,038	\$.047	\$9,933,969
Petrolia.....	1,877,058	.100	187,706
Leeray.....	123,569,372	.060	7,414,162
Sipe Springs.....	19,229,816	.060	1,153,789
Cheaney.....	1,755,913	.060	105,355
Miscellaneous.....	5,288,338	.060	317,900
Total.....	363,081,535	\$.053	\$19,112,281
Oklahoma			
Chickasha.....	2,163,488	\$.080	\$173,079
Duncan.....	461,387	.100	46,139
Loco.....	268,644	.060	16,119
Miscellaneous.....	1,387,030	.075	103,996
Total.....	4,280,549	\$.079	\$339,333
Grand Total.....	367,362,084	\$.053	\$19,451,614

[fol. 8862]

Summary of Future Developing Costs

Necessary to Recover Gas Reserves

January 1st, 1933

(Schedule #2)

	Number Wells to be Drilled	Average Cost per Well	Total Cost
Shamrock.....	86	\$15,063	\$1,295,418
Leeray.....	31	30,991	960,721
Sipe Springs.....	18	22,360	402,480
Total.....	135		\$2,658,619

[fol. 8863] Estimated Costs That Will be Incurred in Recovering Net Gas Reserves

January 1st, 1933

(Schedule #3)

Direct Recovery Costs and Ad Valorem Taxes

Total Gas Wells Now Owned and Operated.....	262
Additional Wells Necessary to be Drilled to Recover Gas Reserves (As Shown on Schedule #2).....	135
Total.....	397

Defendant's Exhibit No. 31—Continued

Average Number Wells Operated per Annum	
One Half, Say	200
Estimated Annual Recovery Cost per Well	\$200
Estimated Annual Recovery Cost	\$40,000
Estimated Number Years Wells Will be Oper- ated to Recover Gas Reserves	20
Estimated Recovery Cost for Recovery Period	\$800,000

Gross Production Tax

Gross Value of Net Gas Reserves as Set Out in Schedule #1	\$19,451,614
Gross Production Tax @ 2¼%	\$437,661

Summary

Estimated Recovery Cost	\$800,000
Gross Production Tax	437,661
Total	\$1,237,661

[fols. 8864-8865] Statement of Salvable Value of Material
Recovered from Wells Upon Abandonment

(Schedule #4)

Value of Material in Wells Now Owned and Operated		\$1,285,234
Value of Material in Wells to be Drilled to Fully Recover Gas Reserves:		
Shamrock District	86 @ \$3,432	295,152
Leeray District	31 @ 9,851	305,381
Sipe Springs Dist.	18 @ 6,337	114,066
	<hr/>	
Total	135	\$714,599
		<hr/>
Total		\$1,999,833
		<hr/>
Net Salvable Value of Material Recovered—25% of Original Cost		\$499,958

[fol. 8866] DEFENDANT'S EXHIBIT No. 32

Lone Star Gas Company
Leaseholds—Undeveloped
(Miscellaneous Leases For Which No Reserve Has Been Calculated)

Determination of Present Value as of January 1, 1933
E. A. Steinberger, Valuation Engineer, Dallas, Texas

(Here follows one paster, folios 8867 to 8896)

Defendant's Exhibit No. 32—Continued

[fols. 8867-8869]

Lone Star Gas Company

Miscellaneous Leases For Which No Reserve Has Been Calculated

Lease Number	County	State	Total Acres	Lone Star Interest	Lone Star Acre Interest	Original Consideration	Rental To Dec. 31, 1932	Incidentals	Cost of Lease Dec. 31, 1932	Acre Interest For Which No Reserve Has Been Calculated	Per Cent of Lone Star Acre Interest	Cost of Lease For Which No Reserve Has Been Calculated
684	Stephens	Texas	80.0	.875	70.0	\$83.32	\$333.33	\$26.87	\$443.52	70.0	100.00	\$443.52
****	****	****	****	****	****	****	****	****	****	****	****	****
[fols. 8870-8878]												
1436	Eastland	"	640.0	.875	560.0	3,200.00	320.00	60.56	3,580.56	163.0	29.10	1,041.94
****	****	****	****	****	****	****	****	****	****	****	****	****
[fols. 8879-8890]												
2005	Eastland	"	160.0	.875	140.0	1,600.00	240.00	3.04	1,843.04	140.0	100.00	1,843.04
****	****	****	****	****	****	****	****	****	****	****	****	****
[fols. 8891-8894]												
TD318 } TD318A }	Gray	"	1,280.0	.875	1,120.0	8,900.00	.....	5.81	8,905.81	1,120.0	100.00	8,905.81
TD319	"	"	160.0	.875	140.0	3,601.00	480.00	7.55	4,088.55	140.0	100.00	4,088.55
TD320	"	"	160.0	.875	140.0	2,800.00	400.00	5.92	3,205.92	140.0	100.00	3,205.92
TD321	"	"	160.0	.875	140.0	2,800.00	400.00	7.29	3,207.29	140.0	100.00	3,207.29
TD322	"	"	1,280.0	.875	1,120.0	6,400.00	.....	9.89	6,409.89	1,120.0	100.00	6,409.89
TD329	Eastland	"	123.5	.0688	8.5	17.00	.....	.....	17.00	8.5	100.00	17.00
Total—Texas.....						\$789,113.21	\$186,016.28	\$8,028.93	\$983,158.42	99,002.3	.....	\$842,874.48
****	****	****	****	****	****	****	****	****	****	****	****	****
[fol. 8895-8896]												
Total—Oklahoma.....						\$78,376.59	\$14,183.11	\$620.01	\$93,179.71	5,660.7	\$50,416.80
Grand Total.....						\$867,489.80	\$200,199.39	\$8,648.94	\$1,076,338.13	104,663.0	\$893,291.28

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[fols. 8897-8900] DEFENDANT'S EXHIBIT No. 33

Lone Star Gas Company

[fols. 8901-8938] Pipe Prices as of June 11, 1934

Large Lots

The net delivered prices shown in this tabulation are prices applying to the Lone Star Gas System in Oklahoma and Texas, with the exception of Galveston and El Paso, Texas. The carload freight rate in arriving at the delivered prices is 84 cents per hundred-weight.

The prices are for "Large" Lots as approved under the Steel Code and are based on the following:

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[fols. 8939-8940] DEFENDANT'S EXHIBIT No. 34

Lone Star Gas Company

Comparison of Pipe Prices January 1, 1933, to June 11, 1934, Inclusive

[fol. 8941] Table of Contents

	Side Folios
Comparison of Pipe Prices	8942
Plain End	8943
Threaded and Coupled	8945
Electric Weld	8947
Smithweld	8947
Casing	8948
Tubing	8948

[fol. 8942] Comparison of Pipe Prices

3036.

(Here follows one paster, side folios 8943 to 8948-8974)

3036

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Defendant's Exhibit No. 34—Continued

[fol. 8943]

Lone Star Gas System
Comparison of Pipe Prices

Size (Inches)			Delivered		"Large" Lots		"Large Lots"		"Large Lots"			
			January 1, 1933		July 1, 1933		January 2, 1934		May 1, 1934		June 11, 1934	
Nom.	O. D.	Weight Per Foot	Net Cost	Per Cent	Net Cost	Per Cent	Net Cost	Per Cent	Net Cost	Per Cent	Net Cost	Per Cent
Buttweld, Standard, Black—Single Random Lengths												
1/8		.244		100.00			\$.0288		\$.0288		\$.0284	
1/4		.424	\$.0277	100.00	\$.0265	95.57	.0283	102.17	.0302	109.03	.0299	107.94
3/8		.567	.0277	100.00	.0265	95.57	.0283	102.17	.0302	109.03	.0299	107.94
1/2		.850	.0373	100.00	.0357	95.71	.0362	96.79	.0388	104.02	.0384	102.98
3/4		1.130	.0465	100.00	.0445	95.70	.0449	96.56	.0487	104.73	.0481	103.44
1		1.678	.0656	100.00	.0626	95.43	.0633	96.49	.0689	105.03	.0681	103.81
1-1/4		2.272	.0887	100.00	.0848	95.60	.0853	96.51	.0931	104.96	.0920	103.72
1-1/2		2.717	.1061	100.00	.1014	95.57	.1023	96.42	.1114	105.00	.1101	103.77
Lapweld, Line, Black—Single Random Lengths												
2	2-3/8	3.652	.1657	100.00	.1502	90.65	.1397	84.31	.1506	90.89	.1489	89.85
2-1/2	2-7/8	5.793	.2426	100.00	.2213	91.22	.2058	84.83	.2233	92.04	.2207	90.97
2-3/4	3	3.572		100.00			.1336		.1440		.1423	
3	3-1/2	7.575	.3173	100.00	.2895	91.24	.2692	84.84	.2919	91.99	.2885	90.92
	4	5.532		100.00			.1958		.2122		.2098	
	4	9.109	.3815	100.00	.3224	84.51	.3003	78.72	.3277	85.90	.3240	84.93
	4-1/2	10.790	.3580	100.00	.3820	106.70	.3558	99.39	.3882	108.44	.3837	107.18
	5-1/2	16.870	.5615	100.00	.5086	106.61	.5555	98.93	.6055	107.84	.5986	106.61
	6	10.222		100.00			.3633		.3937		.3891	
	6-5/8	11.652	.4217	100.00	.4458	105.71	.4132	97.98	.4476	106.14	.4424	104.91
	6-5/8	16.604	.5689	100.00	.6072	106.73	.5631	98.98	.6124	107.65	.6053	106.40
	6-5/8	17.021	.5678	100.00	.6053	106.60	.5622	99.01	.6127	107.91	.6057	106.67
	6-5/8	18.974	.6316	100.00	.6726	106.49	.6268	99.24	.6839	108.28	.6761	107.05
	6-5/8	23.643		100.00			.7805		.8507		.8409	
	6-5/8	28.573	.9521	100.00	1.0711	112.50	.9944	104.44	1.0796	113.39	1.0670	112.07
	7	20.181		100.00			.6818		.7416		.7330	
	7-5/8	22.059		100.00			.7463		.8117		.8023	
	7-5/8	23.544	.8047	100.00	.8560	106.38	.7971	99.06	.8671	107.75	.8570	106.50
	8-5/8	22.361		100.00	.8359		.7753		.8418		.8319	
	8-5/8	23.574	.8246	100.00	.8809	106.83	.8171	99.09	.8871	107.58	.8767	106.32
	8-5/8	24.696	.8427	100.00	.8990	106.68	.8373	99.36	.9117	108.19	.9012	107.94
	8-5/8	25.062	.8562	100.00	.9138	106.73	.8480	99.04	.9224	107.73	.9117	106.48
	8-5/8	28.554	.9759	100.00	1.0365	106.21	.9647	98.85	1.0503	107.62	1.0382	106.38
	10-3/4	26.720	1.0150	100.00	1.0625	104.68	.9852	97.06	1.0646	104.89	1.0520	103.65
	10-3/4	28.035	1.0645	100.00	1.1144	104.69	1.0331	97.05	1.1164	104.88	1.1032	103.64
	10-3/4	31.201	\$1.1334	100.00	\$1.1621	102.53	\$1.0855	95.77	\$1.1807	104.17	\$1.1670	102.96
	10-3/4	31.445	1.1411	100.00	1.1620	101.83	1.0784	94.51	1.1718	102.69	1.1581	101.49
	10-3/4	34.240	1.1996	100.00	1.2720	106.04	1.1872	98.97	1.2914	107.65	1.2765	106.41
	10-3/4	38.875		100.00			1.3326		1.4481		1.4312	
	12-3/4	33.375	1.2662	100.00	1.3566	107.14	1.2570	99.27	1.3561	107.10	1.3400	105.83
	12-3/4	34.552	1.2537	100.00	1.3409	106.96	1.2436	99.19	1.3463	107.39	1.3305	106.13
	12-3/4	37.453	1.3590	100.00	1.4537	106.97	1.3481	99.20	1.4594	107.39	1.4422	106.12
	13	43.335		100.00			1.6354		1.7633		1.7423	
	13	48.467		100.00			1.8271		1.9711		1.9476	
	14	54.568	2.0720	100.00	2.2198	107.13	2.0733	100.06	2.2196	107.12	2.1931	105.84
	16	42.053	1.6850	100.00	1.8084	107.32	1.6748	99.39	1.7998	106.81	1.7780	105.52
	16	47.215	1.8932	100.00	2.0319	107.33	1.8821	99.41	2.0227	106.84	1.9982	105.55
	18	47.393		100.00			1.9263		2.0672		2.0429	
	18	49.074	1.9659	100.00	2.1556	109.65	1.9956	101.51	2.1415	108.93	2.1154	107.60
	18	53.223	2.1339	100.00	2.3398	109.65	2.1667	101.54	2.3250	108.96	2.2967	107.63
	18	59.032	2.3668	100.00	2.5126	106.17	2.3276	98.35	2.5033	105.78	2.4730	104.50
	20	59.231	2.3746	100.00	2.6038	109.65	2.4110	101.53	2.5872	108.95	2.5558	107.63
	20	65.577	3.3581	100.00	3.6414	108.44	3.3730	100.44	3.6276	108.03	3.5838	106.72
	22	86.609		100.00			3.4901		3.7479		3.7024	
	24	102.368	4.1037	100.00	4.4519	108.49	4.1228	100.47	4.4274	107.89	4.3737	106.58
	24	110.097	4.4160	100.00	4.7907	108.49	4.4332	100.39	4.7607	107.81	4.7029	106.50
Lapweld, Line, Black—Double Random Lengths												
	4-1/2	10.790	.3670	100.00	.3921	106.84	.3650	99.46	.3975	108.31	.3920	107.40
	6-5/8	18.974	.6475	100.00	.6904	106.63	.6431	99.32	.7002	108.14	.6925	107.25
	8-5/8	25.062	.8771	100.00	.9370	106.83	.8693	99.11	.9437	107.59	.9345	106.85
	10-3/4	31.445	1.1674	100.00	1.1912	102.04	1.1052	94.67	1.1987	102.68	1.1800	101.75
	12-3/4	33.375					1.2853		1.3844		1.3640	
	12-3/4	37.453	1.3905	100.00	1.4885	107.05	1.3799	99.24	1.4913	107.25	1.4700	106.35
	Seamless, Line, Black—Single Random Lengths											
	6-5/8	23.582		100.00			.8122		.8821		.8681	
	16	47.215		100.00	2.1013		1.9526		2.0931		2.0681	
	18	53.223					2.2461		2.4044		2.3740	

[fol. 8944]

[fol. 8945]

Threaded and Coupled

Lap weld, Line, Black—Single Random Lengths										
2		3.750	\$.1755	100.00	\$.1631	92.93	\$.1511	86.10	\$.1622	92.42
2-1/2		5.900	.2564	100.00	.2402	93.68	.2226	86.82	.2402	93.68
3		7.700	.3347	100.00	.3135	93.67	.2907	86.85	.3134	93.64
4		11.000	.4782	100.00	.4274	89.38	.3965	82.92	.4292	89.75
4-1/2		12.800		100.00			.4613		.4994	
6		19.450	.8438	100.00	.7542	89.38	.6993	82.88	.7571	89.73
7		24.050	1.1012	100.00	.9554	86.76	.8856	80.42	.9570	86.91
8		25.550	1.1662	100.00	1.0119	86.77	.9372	80.36	1.0128	86.85
8		29.350	1.3405	100.00	1.1630	86.76	1.0774	80.37	1.1643	86.86
10		32.750	1.5548	100.00	1.3094	84.22	1.2130	78.02	1.3097	84.04
10		35.750	1.6982	100.00	1.4311	84.27	1.3249	78.02	1.4307	84.25
12		45.450	2.2168	100.00	1.8734	84.51	1.7369	78.35	1.8722	84.48

10	32.750	1.5548	100.00	1.3094	84.22	1.2130	78.02	1.3097	84.04	1.2942	84.23
10	35.750	1.6982	100.00	1.4311	84.27	1.3249	78.02	1.4307	84.25	1.4136	83.24
12	45.450	2.2168	100.00	1.8734	84.51	1.7369	78.35	1.8722	84.46	1.8499	83.45
12	51.150	2.4946	100.00	2.1082	84.51	1.9545	78.35	2.1069	84.46	2.0817	83.45
Buttweld, Standard, Black—Single Random Lengths											
1/8	.245		100.00			.0298		.0300		.0297	
1/4	.425		100.00			.0294		.0313		.0310	
3/8	.568		100.00			.0294		.0313		.0310	
1/2	.852		100.00			.0376		.0405		.0400	
3/4	1.134		100.00			.0471		.0509		.0504	
1	1.684		100.00			.0664		.0721		.0712	
1-1/4	2.281		100.00			.0899		.0975		.0963	
1-1/2	2.731		100.00			.1076		.1166		.1152	
Buttweld, Line, Black—Single Random Lengths											
1-1/4	2.300	.0949	100.00	.0930	98.00	.0941	99.16	.1019	107.38	.1007	
1-1/2	2.750		100.00			.1122		.1214		.1199	
[fol. 8946]											
Buttweld, Standard, Galvanized—Single Random Lengths											
1/8	.245					\$.0412		\$.0412		\$.0407	
1/4	.425					.0398		.0418		.0413	
3/8	.568					.0398		.0418		.0413	
1/2	.852					.0469		.0496		.0490	
3/4	1.134					.0580		.0618		.0611	
1	1.684					.0810		.0865		.0854	
1-1/4	2.281					.1094		.1171		.1156	
1-1/2	2.731					.1310		.1400		.1383	
Buttweld, Line, Galvanized—Single Random Lengths											
1-1/4	2.300	\$.1186	100.00	\$.1127	95.03	.1141	96.21	.1218	102.70	.1203	101.43
1-1/2	2.750		100.00			.1359		.1451		.1434	
Lapweld, Line, Galvanized—Single Random Lengths											
2	3.750	\$.2132	100.00	.1945	91.23	.1798	84.33	.1909	89.54	.1886	88.46
2-1/2	5.900		100.00			.2678		.2903		.2868	
3	7.700	.4120	100.00	.3781	91.77	.3496	84.85	.3790	91.99	.3743	90.85
4	11.000	.5885	100.00	.5195	88.28	.4807	81.68	.5134	87.24	.5071	86.17
Buttweld, Extra Strong, Black, Single Random Lengths											
1	2.223	.1016	100.00	.0970	95.47	.0985	96.95	.1057	104.04	.1044	102.76
Lapweld, Extra Strong, Copperoid—Single Random Lengths											
2	5.130		100.00			.2368		.2561		.2529	
Buttweld, Extra Strong, Copperoid—Single Random Lengths											
2	5.130		100.00	.2312		.2337		.2503		.2472	
[fol. 8947]											
Republic Electric Weld—Plain End—Double Random Lengths											
4-1/2	10.790	\$.3775	100.00			\$.3446	91.28	\$.4083	108.16	\$.4035	106.89
6-5/8	18.974	.6660	100.00			.6601	99.11	.7193	108.00	.7110	106.76
Smithweld—Plain End											
16	47.215	2.0213	100.00	\$2.1760	107.65	1.9787	97.89	2.1193	104.85	2.0839	103.10
18	53.223	2.2784	100.00	2.5032	109.87	2.2755	99.87	2.4340	106.83	2.3934	105.05
20	59.231	2.5353	100.00	2.7855	109.87	2.5320	99.87	2.7085	106.83	2.6603	105.17
Smithweld—Bell & Spigot											
16	42.053	1.8305	100.00	1.9681	107.52	1.7472	96.45	1.8858	103.02	1.8821	102.82
[fols. 8948-8974]											
Casing—Lapweld—Threaded & Coupled—Black											
4-1/4	9.500	\$.4525	100.00	\$.4357	96.29	\$.4406	97.37	\$.4775	105.52	\$.4715	104.20
4-1/2	9.500		100.00			.4427		.4795		.4736	
5-3/16	13.000	.6159	100.00	.6159	100.00	.6236	101.25	.6748	109.56	.6663	108.18
5-3/16	17.000	.7625	100.00	.7394	96.97	.7492	98.26	.8127	106.58	.8026	105.26
5-3/16	20.000	.9133	100.00	.8798	96.33	.8940	97.89	.9697	106.18	.9577	104.86
6-1/4	20.000	.9217	100.00	.8966	97.28	.9110	98.84	.9867	107.05	.9744	105.72
6-1/4	24.000	1.0893	100.00	1.0641	97.69	1.0813	99.27	1.1714	107.54	1.1568	106.20
6-5/8	17.000	.7939	100.00	.7751	97.63	.7854	98.93	.8488	106.92	.8382	105.58
6-5/8	22.000	.9301	100.00	.9049	97.29	.9195	98.86	.9952	107.00	.9828	105.67
6-5/8	24.000	1.0976	100.00	1.0725	97.71	1.0898	99.29	1.1798	107.49	1.1651	106.15
8-1/4	28.000	1.3490	100.00	1.3406	99.38	1.3537	100.35	1.4602	108.24	1.4418	106.88
8-1/4	32.000	1.5585	100.00	1.4998	96.23	1.5154	97.23	1.6469	105.67	1.6262	104.34
8-1/4	36.000	1.7428	100.00	1.6590	95.19	1.6857	96.72	1.8251	104.72	1.8022	103.41
10	35.750	1.6926	100.00	1.6842	99.50	1.7113	101.10	1.8481	109.19	1.8248	107.81
10	40.000	1.9691	100.00	1.9104	97.02	1.9411	98.58	2.0884	106.06	2.0621	104.72
10	45.000	2.2204	100.00	2.1366	96.23	2.1625	97.39	2.3346	105.14	2.3052	103.82
12-1/2	45.000	2.2623	100.00	2.1953	97.04	2.2220	98.22	2.4027	106.21	2.3722	104.86
12-1/2	50.000	2.5221	100.00	2.3964	95.02	2.4264	96.21	2.6148	103.68	2.5818	102.37
13-3/8	54.500					2.9624		3.1715		3.1307	
13-1/2	50.000	2.9913	100.00	2.8153	94.12	2.8518	95.34	3.0402	101.63	3.0007	100.31
16	55.000	3.5024	100.00	3.5443	101.20	3.5920	102.56	3.8052	108.65	3.7549	107.21
15-1/2	70.000	4.4576	100.00	4.3990	98.69	4.4518	99.87	4.7225	105.94	4.6602	104.55
20	90.000	6.3848	100.00	6.1921	96.98	6.2731	98.25	6.6174	103.64	6.5291	102.26
Casing—Seamless—Threaded & Coupled—Black											
5-3/16	17.000	.8379	100.00	.8253	98.50	.8364	99.82	.8908	107.39	.8885	106.04
6-5/8	24.000	1.1898	100.00	1.1647	97.89	1.1834	99.46	1.2735	107.03	1.2574	105.68
8-1/4	28.000	1.4496	100.00	1.4412	99.42	1.4558	100.43	1.5623	107.77	1.5423	106.39
10	40.000	2.1199	100.00	2.0612	97.23	2.0942	98.79	2.2416	105.74	2.2129	104.39
10	45.000	2.3880	100.00	2.3042	96.49	2.3326	97.68	2.5048	104.89	2.4728	103.55
Tubing—Lapweld—Threaded & Coupled—Black											
2	4.600	.2158	100.00	.2158	100.00	.2193	101.62	.2384	110.47	.2355	109.13
2	5.000		100.00	.2409		.2426		.2631		.2599	
2-1/2	6.400	.2828	100.00	.2828	100.00	.2852	100.85	.3110	109.97	.3071	108.59
3	7.700	.3456	100.00	.3456	100.00	.3491	101.01	.3793	109.75	.3746	108.39
3	8.500	.3833	100.00	.3833	100.00	.3874	101.07	.4217	110.02	.4165	108.66
4	11.800	.5300	100.00	.5174	97.62	.5236	98.79	.5690	107.36	.5620	106.04

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PAGE

[fol. 8975]

DEFENDANT'S EXHIBIT No. 37

P. McDonald Biddison

Consulting Engineer

Tower Petroleum Building

Dallas, Texas

Lone Star Gas Company

Condition of Property 1-1-1933

Public Service Plant, Property and Business

Summary

Item	Reproduction Cost—New	Per Cent Condition	Present Value
Physical Property Including Un- distributed General Costs			
Production System Property...	\$9,141,858.05	99.66	\$9,108,352.94
Gathering System Property....	1,785,390.34	89.50	1,597,979.87
Transmission System Property..	40,297,559.90	92.61	37,320,692.83
Compressing System Property..	5,899,838.50	87.89	5,185,631.16
General System Property.....	2,929,942.78	88.62	2,596,548.36
Total.....	<u>\$60,054,589.57</u>	<u>92.93</u>	<u>\$55,809,205.16</u>
Non Physical Values			
Preliminary and Organization...	\$4,434,328.00	100.00	\$4,434,328.00
Working Capital.....	1,701,600.00	100.00	1,701,600.00
Going Concern Value.....	7,792,888.00	100.00	7,792,888.00
Total.....	<u>\$13,928,816.00</u>	<u>100.00</u>	<u>\$13,928,816.00</u>
Grand Total.....	<u>\$73,983,405.57</u>	<u>94.26</u>	<u>\$69,738,021.16</u>

The above determination of Present Value of Public Service Plant, Property and Business of Lone Star Gas Company as of January 1, 1933, as detailed in subsequent pages is based upon Reproduction Cost-New as determined by an appraisal by E. A. Steinberger, Ed. C. Connor and P. McDonald Biddison as of January 1, 1933 and represents my judgment based upon an examination of the property of the relative Present Value to Cost of Reproduction-New.

Dallas, Texas
Aug. 30, 1933

P. McDonald Biddison,
Consulting Engineer

3037

Defendant's Exhibit No. 37—Continued

[fol. 8976]

Lone Star Gas Company

Condition of Property 1-1-1933

Account	Reproduction Cost—New	Per Cent Condition	Present Value
Production System Property			
Leaseholds—Developed.....	\$2,681,689.00	100.00	\$2,681,689.00
Leaseholds—Undeveloped.....	893,291.28	100.00	893,291.28
Gas Wells.....	3,908,424.15	99.94	3,906,308.10
Other Production System Structures.....	9,450.29	82.00	7,749.24
Other Production System Equipment.....	95,764.08	75.00	71,823.06
Sub-Total.....	\$7,588,618.80	99.63	\$7,560,860.68
General Supervision—Allocated.....	\$148,596.00	99.63	148,046.19
Undistributed General Costs....	1,404,643.25	99.63	1,399,446.07
Total.....	\$9,141,858.05	99.63	\$9,108,352.94
Gathering System Property			
Rights of Way.....	\$11,184.07	100.00	\$11,184.07
Field Measuring Station Structures.....	37,304.09	86.78	32,373.84
Field Measuring Station Equipment.....	130,222.96	96.71	125,945.65
Field Line Equipment.....	1,324,159.00	88.78	1,175,620.71
Sub-Total.....	\$1,502,870.12	89.50	\$1,345,124.27
General Supervision—Allocated.....	5,288.00	89.50	4,732.76
Undistributed General Costs....	277,232.22	89.50	248,122.84
Total.....	\$1,785,390.34	89.50	\$1,597,979.87
Transmission System Property			
Transmission System Measuring Station Land, including Improvements.....	\$90,898.48	98.04	\$89,119.86
Transmission System Measuring Station Leaseholds, including Improvements.....	9,270.32	96.51	8,947.38
Other Transmission System Land including Improvements.....	26,485.54	92.73	24,562.16
[fol. 8977]			
Other Transmission System Leaseholds, including Improvements.....	\$2,267.21	91.97	\$2,085.18
Rights of Way.....	1,242,000.69	100.00	1,242,000.69
Transmission System Measuring Station Structures.....	148,572.34	94.71	140,717.41
Other Transmission System Structures.....	145,016.29	83.76	121,469.47
Transmission System Measuring Station Equipment.....	410,606.98	97.16	398,965.40
Transmission Line Equipment..	31,894,439.40	92.28	29,432,462.73
Sub-Total.....	\$33,969,557.25	92.61	\$31,460,330.28
General Supervision—Allocated.....	127,242.00	92.61	117,838.16
Undistributed General Costs....	6,200,760.65	92.61	5,742,524.39
Total.....	\$40,297,559.90	92.61	\$37,320,692.83

Defendant's Exhibit No. 37—Continued

Account	Reproduction Cost—New	Per Cent Condition	Present Value
Compressing System Property			
Land, including Improvements.	\$96,549.09	88.73	\$85,675.82
Leaseholds, including Improve- ments.....	29,985.13	89.57	26,859.26
Structures.....	718,056.31	87.17	625,962.72
Equipment.....	4,065,351.72	87.99	3,577,113.55
Sub-Total.....	\$4,909,942.25	87.89	\$4,315,611.35
General Supervision—Allocated.	84,271.00	87.89	74,065.78
Undistributed General Costs....	905,625.25	87.89	795,954.03
Total.....	\$5,899,838.50	87.89	\$5,185,631.16

[fols. 8978-8980]

General System Property			
General Office Land.....	\$44,545.00	100.00	\$44,545.00
Other General Land.....	49,273.87	99.48	49,018.03
General Office Structure.....	321,437.63	93.00	298,936.99
Other General Structures.....	46,789.56	96.88	45,328.83
General Office Furniture and Fixtures.....	207,601.84	85.00	176,463.26
Other General Furniture and Fixtures.....	12,059.97	65.00	7,838.98
General Shop Equipment.....	104,000.27	93.68	97,429.70
General Tools.....	131,549.72	78.18	102,847.47
Automotive and Construction Equipment.....	423,717.82	65.00	275,416.58
General Telephone System.....	370,464.12	89.55	331,750.62
Final Engineering Records.....	765,690.35	100.00	765,690.35
Sub-Total.....	\$2,477,180.15	88.62	\$2,195,265.81
Undistributed General Costs....	452,812.63	88.62	401,282.55
Total.....	\$2,929,942.78	88.62	\$2,596,548.36
Grand Total.....	\$60,054,589.57	92.93	\$55,809,205.16

[fols. 8981-8987]

Gas Well Equipment

Item	Reproduction Cost—New	Per Cent Condition	Present Value
Fee Wells.....	\$3,894,317.16	100.00	\$3,894,317.16
Other Owned Wells.....	14,106.99E	85.00	11,990.94
Total.....	\$3,908,424.15	99.94	\$3,906,308.10

[fol. 8988-9002]

Gathering System Rights of Way

Field	Reproduction Cost—New	Per Cent Condition	Present Value
Duncan.....	\$365.94	.....	.....
Fox.....	259.50	.....	.....
Pottsboro.....	132.60	.....	.....
Petrolia.....	677.02	.....	.....
Panhandle.....	2,778.00	.....	.....
West Texas.....	6,269.01	.....	.....
Chickasha.....	702.00	.....	.....
Total.....	\$11,184.07	100.00	\$11,184.07

Defendant's Exhibit No. 37—Continued

[fol. 9003-9034]

Field Line Equipment

Location	Reproduction Cost—New	Per Cent Condition	Present Value
Chickasha Field.....	\$63,691.04	90.00	\$57,321.94
Duncan Field.....	100,072.50	85.00	85,061.63
Fox Field.....	187,115.67	87.00	162,790.63
Panhandle Field.....	205,731.85	96.00	197,502.58
Petrolia Field.....	183,951.69	74.00	136,124.25
Pottsboro Field.....	444.36	72.00	319.94
West Texas Field.....	583,151.89	92.00	536,499.74
Total—Field Line Equipment	\$1,324,159.00	88.78	\$1,175,620.71

[fol. 9035-9053]

Transmission System Measuring Station Leaseholds

Summary

System	Land	Improvements			Total Present Value
		New	Per Cent Condition	Depreci- ated	
Line A.....	\$1,202.51	\$332.49	95.00	\$315.87	\$1,518.38
B.....	31.52	380.62	90.00	342.56	374.08
E.....	442.70	1,158.65	94.71	1,097.36	1,540.06
F.....	129.07	54.94	90.00	49.45	178.52
G.....	59.25	69.80	95.00	66.31	125.56
J.....	64.47	105.70	90.00	95.13	159.60
K.....	173.84	275.59	98.00	270.08	443.42
L.....	343.75	995.38	95.00	945.61	1,289.36
M.....	436.55	513.51	90.00	462.16	898.71
O.....	728.80	1,328.04	95.00	1,261.64	1,990.44
R.....	39.34	194.34	98.00	190.45	229.79
Numbered....	.....	209.96	95.00	199.46	199.46
Total.....	\$3,651.30	\$5,619.02	94.25	\$5,296.08	\$8,947.38

Defendant's Exhibit No. 37—Continued

[fol. 9054-9120]

Transmission System Rights of Way

System	Reproduction Cost—New	Per Cent Condition	Present Value
A.....	\$125,808.51	.....	.....
B.....	43,567.00	.....	.....
2nd B.....	34,800.63	.....	.....
C.....	14,288.34	.....	.....
E.....	104,717.33	.....	.....
F.....	47,242.59	.....	.....
G.....	78,729.94	.....	.....
H.....	58,879.58	.....	.....
J.....	16,093.88	.....	.....
K.....	177,724.83	.....	.....
L.....	143,548.32	.....	.....
M.....	84,653.33	.....	.....
O.....	188,191.96	.....	.....
R.....	30,197.76	.....	.....
Numbered.....	72,853.16	.....	.....
T.P.U.....	20,703.53	.....	.....
Grand Total Rights of Way	<u>\$1,242,000.69</u>	<u>100.00</u>	<u>\$1,242,000.69</u>

[fol. 9121-9218]

Transmission Line Equipment

Summary			
System	Reproduction Cost—New	Per Cent Condition	Present Value
A.....	\$3,806,446.39	94.68	\$3,604,048.28
B.....	3,250,794.92	94.81	3,082,152.49
C.....	585,900.29	86.00	503,874.25
E.....	1,781,320.58	88.59	1,578,145.74
F.....	1,068,427.82	87.00	929,532.19
G.....	1,848,791.83	89.00	1,645,424.70
H.....	1,685,720.90	91.86	1,548,466.43
J.....	523,829.27	87.00	455,731.46
K.....	5,153,684.18	96.12	4,953,871.18
L.....	2,962,144.38	91.53	2,711,384.26
M.....	1,449,864.48	87.45	1,267,881.27
O.....	5,089,344.08	91.99	4,681,928.54
R.....	640,531.76	98.00	627,721.12
Numbered.....	1,355,528.42	92.00	1,247,086.13
T.P.U.....	692,110.10	86.00	595,214.69
Total.....	<u>\$31,894,439.40</u>	<u>92.28</u>	<u>\$29,432,462.73</u>

Defendant's Exhibit No. 37—Continued

[fol. 9219-9231]

Automotive and Construction Equipment			
Item	Reproduction Cost—New	Per Cent Condition	Present Value
Automobiles.....	\$170,797.67	.....	.....
Trucks.....	106,021.97	.....	.....
Trailers.....	16,519.21	.....	.....
Tractors.....	59,935.00	.....	.....
Air Compressors.....	23,090.41	.....	.....
Ditching Machines.....	40,739.16	.....	.....
Backfillers.....	6,614.40	.....	.....
Total.....	<u>\$423,717.82E</u>	<u>65.00</u>	<u>\$275,416.58</u>

[fols. 9232-9233] DEFENDANT'S EXHIBIT No. 39

[fol. 9234] Lone Star Gas Company

Comparison of Steel Pipe Prices as Adopted in R. R. Commission of Texas, Gas Utilities Docket No. 75, Opinion and Order of September 13, 1933, and as Quoted by Pipe Mills, June 11, 1934, Covered by N. R. A. Code 1116-02

and

Comparison of Dresser Coupling Prices as Adopted in R. R. Commission of Texas, Gas Utilities Docket No. 75, Opinion and Order of September 13, 1933, and as Quoted June 11, 1934

E. A. Steinberger, Valuation Engineer, Dallas, Texas

Defendant's Exhibit No. 39—Continued

Lone Star Gas Company

Comparison of Steel Pipe Prices as Adopted in R. R. Commission of Texas, Gas Utilities Docket No. 75, Opinion and Order of September 13, 1933 and as Quoted by Pipe Mills June 11, 1934, Covered by N.R.A. Code 1116-02

Plain End Single Random Lengths (Except Smithweld and Where Otherwise Noted)

Size (Inches) (1)	Weight Per Foot (2)	Linear Feet (3)	Per Foot (4)	Amount (5)	F.O.B. Mill Per Foot (6)	Amount (7)	Difference (8)
20	A.O.S.	536,523	\$1.8646	\$1,000,400.78	\$2.1660	\$1,162,108.82	\$161,708.04
		1,395	1.5601	2,176.34	2.0585	2,871.61	695.27
		283,804	1.5615	443,159.95	1.9774	561,194.03	118,034.08
		1,389,006	1.4078	1,955,442.65	1.8498	2,569,388.30	613,940.65
18	A.O.S.	14,000	1.6756	23,458.40	1.9465	27,251.00	3,792.60
		291,822	1.2967	378,405.59	1.7038	497,206.32	118,800.73
		725,622	1.2491	906,374.44	1.6017	1,162,228.76	255,854.32
		91	1.4866	135.28	1.6874	153.55	18.27
12-3/4	A.O.S.	1,257,991	1.1114	1,398,131.20	1.4252	1,792,888.77	394,757.57
		4,800	1.3505	6,482.40	1.8321	9,034.08	2,551.68
		658,867	.9800	645,689.66	1.1281	743,267.86	97,578.20
		141,006	1.0097	142,373.76	1.1594	163,482.36	21,108.60
10-3/4	D.L.	1,742	.9041	1,574.94	1.0407	1,812.90	237.96
		1,005,232	.9254	930,241.69	1.0603	1,065,847.49	135,605.80
		8,684	.8509	7,389.22	.9825	8,532.03	1,142.81
		10,005	.8166	8,170.08	1.0212	10,217.11	2,047.03
8-5/8	D.L.	1,917,929	.7693	1,475,462.78	.8944	1,715,895.70	239,932.92
		76,151	.7926	60,357.28	.9208	70,119.84	9,762.56
		43	.7662	32.95	.8944	38.46	5.51
		200,163	.7547	151,063.02	.8982	179,786.41	28,723.39
8-5/8	D.L.	30,386	.7276	22,108.85	.8680	26,375.05	4,266.20
		223,148	.6938	154,820.08	.8277	184,699.60	29,879.52
		2,183	.7997	1,744.95	.6912	1,508.20	236.75

† Red in copy.

Defendant's Exhibit No. 39—Continued

Size (Inches) (1)	Weight Per Foot (2)	Linear Feet (3)	R.R. Commission of Texas Gas Utilities Docket # 75		Quotations June 11, 1934 Based on N.R.A. Code # 1116-02	
			Per Foot (4)	Amount (5)	F.O.B. Mill Per Foot (6)	Amount (7)
8-5/8 D.L.	25.062	968.113	.5684	550,275.43	.7017	679,324.89
	25.062	226.288	.5870	132,831.06	.7227	163,538.34
	24.960	73.518	.5592	41,111.27	.6912	50,815.64
	23.574	242.069	.5518	133,573.67	.6793	164,437.47
	23.544	8.591	.5539	4,758.55	.6596	5,666.62
7-5/8 6-5/8 6	24.000	569	.4298	244.56	.9635	548.23
	23.500	71.913	.3355	24,126.81	.6744	48,498.13
	18.974	2,525.456	.4082	1,030,891.14	.5148	1,300,104.75
	18.974	590.548	.4221	249,270.31	.5309	313,521.93
	16.694	130.383	.3706	48,319.94	.4659	60,745.44
4 3-1/2 3 2	10.790	1,908.143	.2313	441,353.48	.2922	557,559.38
	10.790	259.901	.2392	62,168.32	.3014	78,334.16
	9.109	851	.2670	227.22	.2467	209.94
	7.575	1,039.586	.1627	169,140.64	.2243	233,179.14
	3.652	125.042	.1227	15,342.65	.1178	14,729.95
Total—Plain End				\$12,618,831.34		\$15,636,617.26
						\$3,007,785.92
						129,049.46
						30,707.28
						9,704.37
						30,863.80
						908.07
						303.67
						24,371.32
						269,213.61
						64,251.62
						12,425.50
						116,205.90
						16,165.84
						17.28†
						64,038.50
						612.70†

12	51,150
10	45,450
	37,240
	40,000
	35,750
	32,750
8	29,350
6	25,550
	24,000
	20,000
	19,450
	19,367
5-3/16	17,000
	17,000
	13,000
4	11,000
3	7,700
2	3,750

Total—Threaded and Coupled

Grand Total—All Pipe

† Red in copy.

Threaded and Coupled—Single Random Lengths

3,105	\$1,5395	\$4,780.15	\$1,6517	\$5,128.53	\$348.38
1,720	1,3682	2,353.30	1,4677	2,524.44	171.14
17,949	1,0871	19,512.36	1,1154	20,020.31	507.95
6,664	7292	4,859.39	1,7261	11,502.73	6,643.34
12,078	1,0437	12,006.81	1,1154	13,471.80	6,865.99
	9553	8,071.33	1,0212	8,628.12	556.79
8,449	8197	33,815.90	9052	37,343.12	3,527.22
41,254	7130	23,863.40	7874	26,353.49	2,490.09
33,469	4298	12,935.69	9635	28,998.46	16,062.77
30,097	4707	6,458.00	8148	1,1179.06	4,721.06
13,720	5052	568,407.09	5852	658,416.13	90,009.04
1,125,113	5052	3,312.60	5852	3,837.16	524.56
6,557	4887	1,300.92	6954	1,851.15	550.23
2,662	5243	11,059.58	6598	13,917.82	2,858.24
21,094	4086	2,911.28	5571	3,969.34	1,058.06
7,125	2788	173,109.43	3317	205,955.52	32,846.09
620,909	1952	25,557.15	2451	32,090.45	6,533.30
130,928	1183	42,415.76	1288	46,180.47	3,764.71
368,544					
2,441,437		\$957,329.14		\$1,131,368.10	\$174,038.96
19,393,000		\$13,576,160.48		\$16,757,985.36	\$3,181,824.88

Defendant's Exhibit No. 39—Continued

[fol. 9238-9239]

Lone Star Gas Company

Comparison of Dresser Coupling Prices as Adopted by R. R. Commission of Texas, Gas Utilities Docket No. 75, Opinion and Order of September 13, 1933, and as Quoted June 11, 1934

R.R. Commission of Texas

		Gas Utilities Docket #75			June 11, 1934		
Size (Inches) (1)	Quantity (2)	Unit Cost (3)	Amount (4)	Unit Cost (5)	Amount (6)	Difference (7)	
3/4.....	1	\$.4067	\$.41	\$.4447	\$.44	\$.03	
1.....	5	.4256	2.13	.4646	2.32	.19	
1-1/4.....	3	.4556	1.37	.4976	1.49	.12	
2.....	46	.8979	41.30	.9779	44.98	3.68	
3.....	2	1.1935	2.39	1.2995	2.60	.21	
3-1/2.....	324	1.2613	408.66	1.3723	444.63	35.97	
4.....	8,584	1.4091	12,095.71	1.5331	13,160.13	1,064.42	
6.....	49,336	1.9125	94,355.10	2.0815	102,692.88	8,337.78	
8.....	20,424	2.2759	46,482.98	2.9164	59,564.55	13,081.57	
10.....	55,586	2.8149	156,469.03	3.5622	198,008.45	41,539.42	
12.....	45,550	3.2994	150,287.67	4.1724	190,052.82	39,765.15	
16.....	87,616	4.7030	412,058.05	5.6950	498,973.12	86,915.07	
18.....	73,383	5.8599	430,017.04	6.3649	467,075.46	37,058.42	
Total—Dresser Couplings.....			\$1,302,221.84		\$1,530,023.87	\$227,802.03	

[fol. 9240] DEFENDANT'S EXHIBIT No. 40

[fol. 9241] Lone Star Gas Company

Appraisal

Cost of Reproduction New

May 1, 1934

Public Service Plant, Property and Business, Exclusive
of Fort Worth Division

E. A. Steinberger, P. McDonald Biddison, Ed. C. Connor,
Engineers, Dallas, Texas

[fol. 9242] Summary

Physical Property Including Undis-
tributed General Costs:

Production System Property.....	\$9,101,844.20
Gathering System Property.....	1,774,208.64
Transmission System Property.....	41,968,705.49
Compressing System Property.....	5,875,164.83
General System Property.....	2,914,048.13

Total	<u>\$61,633,971.29</u>
-------------	------------------------

Non Physical Values:

Preliminary and Organization	\$4,434,328.00
Working Capital	1,701,600.00
Going Concern Value	7,792,888.00

Total	<u>\$13,928,816.00</u>
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Grand Total	<u>\$75,562,787.29</u>
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This appraisal is based upon an inventory of all property as of January 1, 1933, to which have been applied market prices of materials of construction and prevailing labor rates as of the same date; with the exception of "Transmission Line Equipment", to which item of property have been applied market prices of materials of construction and labor rates prevailing as of May 1, 1934.

P. McDonald Biddison, Consulting Engineer. Ed.
C. Connor, Consulting Engineer. E. A. Steinberger, Valuation Engineer.

Defendant's Exhibit No. 40—Continued

[fol. 9243]

Lone Star Gas Company

Cost of Reproduction New

May 1, 1934

Public Service Plant and Property

Recapitulation

Account	Amount
Production System Property:	
Leaseholds—Developed	\$2,681,689.00
Leaseholds—Undeveloped	893,291.28
Gas Wells	3,908,424.15
Other Production System Structures	9,450.29
Other Production System Equipment	95,764.08
General Supervision—Allocated	148,596.00
Undistributed General Costs	1,364,629.40
Total	\$9,101,844.20
Gathering System Property:	
Rights of Way	\$11,184.07
Field Measuring Station Structures	37,304.09
Field Measuring Station Equipment	130,222.96
Field Line Equipment	1,324,159.00
General Supervision—Allocated	5,288.00
Undistributed General Costs	266,050.52
Total	\$1,774,208.64
[fol. 9244] Transmission System Property:	
Transmission System Measuring Station Land including Improvements	\$90,898.48
Transmission System Measuring Station Leaseholds including Improvements	9,270.32
Other Transmission System Land including Improvements	26,485.54
Other Transmission System Leaseholds including Improvements	2,267.21
Rights of Way	1,242,000.69

Defendant's Exhibit No. 40—Continued

Account	Amount
Transmission System Measuring Station Structures	148,572.34
Other Transmission System Structures	145,016.29
Transmission System Measuring Station Equipment	410,606.98
Transmission Line Equipment	33,473,821.12
General Supervision—Allocated	127,242.00
Undistributed General Costs	6,292,524.52
Total	<u>\$41,968,705.49</u>
Compressing System Property:	
Land including Improvements	\$96,549.09
Leaseholds including Improvements	29,985.13
Structures	718,056.31
Equipment	4,065,351.72
General Supervision—Allocated	84,271.00
Undistributed General Costs	880,951.58
Total	<u>\$5,875,164.83</u>
[fol. 9245] General System Property:	
General Office Land	\$44,545.00
Other General Land	49,273.87
General Office Structure	321,437.63
Other General Structures	46,789.56
General Office Furniture and Fixtures	207,601.84
Other General Furniture and Fixtures	12,059.97
General Shop Equipment	104,000.27
General Tools	131,549.72
Automotive and Construction Equipment	423,717.82
General Telephone System	370,464.12
Final Engineering Records	765,690.35
Undistributed General Costs	436,917.98
Total	<u>\$2,914,048.13</u>
Grand Total	<u>\$61,683,971.29</u>

Defendant's Exhibit No. 40—Continued

[fol. 9246]

Lone Star Gas Company

Allocation of Undistributed General Costs to System Property

Account	Direct Cost	Per Cent of Total	Undistributed General Costs	Total
Production System Property.....	\$7,737,214.80	14.8	\$1,364,629.40	\$9,101,844.20
Gathering System Property.....	1,508,158.12	2.9	266,050.52	1,774,208.64
Transmission System Property.....	35,676,180.97	68.1	6,292,524.52	41,968,705.49
Compressing System Property.....	4,994,213.25	9.5	880,951.58	5,875,164.83
General System Property.....	2,477,130.15	4.7	436,917.98	2,914,048.13
Total.....	\$52,392,897.29	100.0	\$9,241,074.00	\$61,633,971.29

Defendant's Exhibit No. 40—Continued

[fol: 9247]

Lone Star Gas Company
Transmission Line Equipment
Comparative Summary

System	Reproduction Cost New	
	January 1, 1933	May 1, 1934
A.....	\$3,806,446.39	\$4,060,945.08
B.....	3,250,794.92	3,449,129.53
C.....	585,900.29	618,747.12
E.....	1,781,320.58	1,856,006.46
F.....	1,068,427.82	1,129,403.11
G.....	1,848,791.83	1,948,231.75
H.....	1,685,720.90	1,774,782.28
J.....	523,829.27	548,451.70
K.....	5,153,684.18	5,404,327.31
L.....	2,962,144.38	3,142,451.63
M.....	1,449,864.48	1,494,013.56
O.....	5,089,344.08	5,380,465.09
R.....	640,531.76	665,906.52
Numbered.....	1,355,528.42	1,307,339.91
T. P. U.....	692,110.10	693,620.07
Grand Total.....	<u>\$31,894,439.40</u>	<u>\$33,473,821.12</u>

Defendant's Exhibit No. 40—Continued

[fol. 9248]

Lone Star Gas Company

Comparative Statement of Reproduction Cost New
As Of January 1, 1933 and May 1, 1934

Transmission Line Equipment

	January 1, 1933	May 1, 1934	Difference
Pipe, F.O.B. R.R. Siding.....	\$20,954,471.01	\$22,060,123.55	\$1,105,652.54
Construction Cost.....	6,986,674.34	7,339,248.79	352,574.45
Welding.....	\$27,941,145.35	\$29,399,372.34	\$1,458,226.99
Dresser Couplings.....	1,282,324.76	1,273,603.44	8,721.32*
Miscellaneous.....	1,570,440.29	1,700,316.34	129,876.05
	1,100,529.00	1,100,529.00	.....
Total.....	\$31,894,439.40	\$33,473,821.12	\$1,579,381.72

* Red in copy.

Defendant's Exhibit No. 40—Continued

[fol. 9249]

Lone Star Gas Company

Reproduction Cost New January 1, 1933

Transmission Line Equipment

System	Pipe Cost in Place	Welds	Dresser Couplings	Miscellaneous	Total
A.....	\$3,331,851.63	\$138,938.97	\$211,600.58	\$124,055.21	\$3,806,446.39
B.....	2,925,255.51	124,042.08	143,172.90	58,324.43	3,250,794.92
C.....	487,286.27	7,809.46	47,776.51	43,028.05	585,900.29
E.....	1,559,630.93	130,897.74	52,264.56	38,527.35	1,781,320.58
F.....	922,583.97	13,363.59	98,024.56	34,455.70	1,068,427.82
G.....	1,561,288.25	44,946.61	133,922.25	108,634.72	1,848,791.83
H.....	1,376,521.64	52,377.75	114,675.77	142,145.74	1,685,720.90
J.....	452,873.95	5,296.76	41,832.39	23,826.17	523,829.27
K.....	4,512,888.31	216,862.88	269,408.91	154,524.08	5,153,684.18
L.....	2,588,263.19	258,750.93	41,297.34	73,832.92	2,962,144.38
M.....	1,274,361.73	70,493.35	74,204.53	30,804.87	1,449,864.48
O.....	4,443,666.48	199,471.58	273,184.53	173,021.49	5,089,344.08
R.....	566,600.02	14,079.14	48,237.07	11,615.53	640,531.76
Numbered.....	1,287,415.36	4,762.44	18,685.54	44,665.08	1,355,528.42
T. P. U.....	650,658.11	231.48	2,152.85	39,067.66	692,110.10
Total.....	\$27,941,145.35	\$1,282,324.76	\$1,570,440.29	\$1,100,529.00	\$31,894,439.40

Defendant's Exhibit No. 40—Continued

[fol. 9250-9251]

Lone Star Gas Company

Reproduction Cost New May 1, 1934

Transmission Line Equipment

System	Pipe Cost in Place	Welds	Dresser Couplings	Miscellaneous	Total
A.....	\$3,569,415.65	\$138,304.39	\$229,169.83	\$124,055.21	\$4,060,945.08
B.....	3,112,840.77	122,892.61	155,071.72	58,324.43	3,449,129.53
C.....	516,231.86	7,736.53	51,750.68	43,028.05	618,747.12
E.....	1,631,807.51	130,097.49	55,574.11	38,527.35	1,856,006.46
F.....	975,485.95	13,259.11	106,202.35	34,455.70	1,129,403.11
G.....	1,649,298.68	45,187.09	145,101.26	108,634.72	1,948,231.75
H.....	1,456,340.69	52,030.03	124,265.82	142,145.74	1,774,782.28
J.....	474,029.91	5,265.79	45,329.83	23,826.17	548,451.70
K.....	4,742,868.23	215,079.47	291,855.53	154,524.08	5,404,327.31
L.....	2,767,367.16	256,489.25	44,762.30	73,832.92	3,142,451.63
M.....	1,312,838.25	69,911.67	80,458.77	30,804.87	1,494,013.56
O.....	4,712,958.49	198,621.67	295,863.44	173,021.49	5,380,465.09
R.....	588,223.85	13,773.34	52,293.80	11,615.53	665,906.52
Numbered.....	1,237,675.67	4,715.50	20,283.66	44,665.08	1,307,339.91
T. P. U.....	651,989.67	2,229.50	2,333.24	39,067.66	693,620.07
Total.....	\$29,399,372.34	\$1,273,603.44	\$1,700,316.34	\$1,100,529.00	\$33,473,821.12

Application of Annual Reserve Rates

To the Reproduction Cost New of the Public Service Property of Lone Star Gas Company

Exclusive of the Fort Worth Division as Determined by: P. McDonald Biddison, E. A. Steinberger and Ed. C. Connor

January 1, 1933

Property Item	Reproduction Cost—New	Annual Rate of Reserve Accrual	Annual Amount
Production System Property:			
Leaseholds—Developed.....	\$2,681,689.00	.....	\$146,000.00
Leaseholds—Undeveloped.....	893,291.28	.....	.....
Gas Wells.....	4,057,020.15	.....	421,316.00
Other Production System Structures.....	9,450.29	9.300 Per Cent	878.88
Other Production System Equipment.....	95,764.08	1.000 Per Cent	957.64
Gathering System Property:			
Well Lines			
Rights of Way.....	11,184.07	8.600 Per Cent	961.83
Measuring Station Structures.....	37,304.09	10.500 Per Cent	3,916.93
Measuring Station Equipment.....	130,222.96	10.500 Per Cent	13,673.41
Line Equipment.....	1,329,447.00	8.600 Per Cent	114,332.44
Field Lines			
Land.....	509.00	.....	.....
Rights of Way.....	117,020.00	8.600 Per Cent	10,063.72
Measuring Station Structures.....	3,474.00	10.500 Per Cent	364.77
Measuring Station Equipment.....	8,539.00	10.500 Per Cent	896.60
Line Equipment.....	3,496,999.00	8.600 Per Cent	300,741.91
Transmission System Property:			
Transmission Lines			
Measuring Station Land and Improvements.....	90,389.48	.....	.....
Measuring Station Leaseholds and Improvements.....	9,270.32	.....	.....
Other Land and Improvements.....	26,485.54	.....	.....
Other Leaseholds and Improvements.....	2,267.21	.....	.....
Rights of Way.....	1,124,980.69	5.400 Per Cent	60,748.96
Measuring Station Structures.....	145,098.34	5.100 Per Cent	7,400.02

Defendant's Exhibit No. 41—Continued

Property Item	Reproduction Cost—New	Annual Rate of Reserve Accrual	Annual Amount
Transmission System Property:—Continued			
Transmission Lines—Continued			
Other Structures.....	\$145,016.29	5.100 Per Cent	\$7,395.83
Measuring Station Equipment.....	402,067.98	5.100 Per Cent	20,505.47
Line Equipment.....	28,524,682.40	5.400 Per Cent	1,540,332.82
Compressor Station Property:			
Main Line and Field Line Stations	126,534.22		
Land and Leaseholds, Including Improvements.....	4,867,679.03	6.216 Per Cent	302,574.93
Structures and Equipment.....			
General System Property:			
General Office Land.....	44,545.00		
Other General Land.....	49,273.87		
General Office Structure.....	321,437.63	3.300 Per Cent	10,607.44
Other General Structures.....	46,789.56	3.500 Per Cent	1,637.63
[fol. 9254] Other General Furniture and Fixtures.....	12,059.97	9.700 Per Cent	1,169.82
General Office Furniture and Fixtures.....	207,601.84	9.700 Per Cent	20,137.38*
General Shop Equipment.....	104,000.27	10.000 Per Cent	10,400.03
General Tools.....	131,549.72	1.000 Per Cent	1,315.50
Automotive and Construction Equipment.....	423,717.82	1.000 Per Cent	4,237.18
General Telephone Equipment.....	370,464.12	3.340 Per Cent	12,373.50
Final Engineering Records.....	765,690.35	1.000 Per Cent	7,656.90
Total Direct Structural Costs.....	\$50,813,515.57	5.948 Per Cent	\$3,022,597.54
Other Undistributed General Costs.....	9,201,130.00	1.000 Per Cent	92,001.30
Value of Property Subject to Amortization.....	42,332,671.62	.828 Per Cent	350,514.52
Total Annual Accruals.....			\$3,465,123.36

(Here follows one pager, side folios 9255 to 9256-9258)

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Defendant's Exhibit No. 41—Continued

[fol. 9255]

Value of Property Items to Be Amortized

Lone Star Gas Company

January 1, 1933

Property Items	A	B	C	D	E	F
Production System Property						
Leaseholds—Developed.....	\$2,681,689.00	\$2,681,689.00			\$2,681,689.00	
Leaseholds—Undeveloped.....	893,291.28	893,291.28			893,291.28	
Gas Wells.....	4,057,020.15	3,894,317.16			3,894,317.16	\$162,702.99
Other Production System Structures.....	9,450.29	9,450.29			9,450.29	
Other Production System Equipment.....	95,764.08	95,764.08			95,764.08	
Gathering System Property						
Well Lines						
Rights of Way.....	11,184.07					11,184.07
Measuring Station Structures.....	37,304.09	37,304.09			37,304.09	
Measuring Station Equipment.....	130,222.96	130,222.96			130,222.96	
Line Equipment.....	1,329,447.00			\$491,895.39	491,895.39	837,551.61
Field Lines						
Land.....	509.00					509.00
Rights of Way.....	117,020.00					117,020.00
Measuring Station Structures.....	3,474.00	3,474.00			3,474.00	
Measuring Station Equipment.....	8,539.00	8,539.00			8,539.00	
Line Equipment.....	3,496,999.00			1,293,889.63	1,293,889.63	2,203,109.37
Transmission System Property						
Transmission Lines						
Measuring Station Land and Improvements.....	90,389.48		\$45,194.74		45,194.74	45,194.74
Measuring Station Leaseholds and Improvements.....	9,270.32					9,270.32
Other Land and Improvements.....	26,485.54		13,242.77		13,242.77	13,242.77
Other Leaseholds and Improvements.....	2,267.21					2,267.21
Rights of Way.....	1,124,980.69					1,124,980.69
Measuring Station Structures.....	145,098.34	145,098.34			145,098.34	
Other Structures.....	145,016.29	145,016.29			145,016.29	
Measuring Station Equipment.....	402,067.98	402,067.98			402,067.98	
Line Equipment.....	28,524,682.40			10,554,132.49	10,554,132.49	17,970,549.91
Compressor Station Property						
Main Line and Field Line Stations						
Land and Leaseholds, Including Improvements.....	126,534.22		63,267.11		63,267.11	63,267.11
Structures and Equipment.....	4,867,679.03	4,867,679.03			4,867,679.03	
General System Property						
General Office Land.....	44,545.00		44,545.00		44,545.00	
Other General Land.....	49,273.87		49,273.87		49,273.87	
General Office Structure.....	321,437.63	321,437.63			321,437.63	
[fols. 9256-9258]						
Other General Structures.....	46,789.56	46,789.56			46,789.56	
Other General Furniture and Fixtures.....	12,059.97	12,059.97			12,059.97	
General Office Furniture and Fixtures.....	207,601.84	207,601.84			207,601.84	
General Shop Equipment.....	104,000.27	104,000.27			104,000.27	
General Tools.....	131,549.72	131,549.72			131,549.72	
Automotive and Construction Equipment.....	423,717.82	423,717.82			423,717.82	
General Telephone Equipment.....	370,464.12			137,071.72	137,071.72	233,392.40
Final Engineering Records.....	765,690.35					765,690.35
Total Direct Structural Costs.....	\$50,813,515.57	\$14,561,070.31	\$215,523.49	\$12,476,989.23	\$27,253,583.03	\$23,559,932.54
Other Undistributed General Costs.....	9,201,130.00	860,644.00		1,834,906.92*	2,695,550.92	6,505,579.08
Preliminary Development and Organization Costs.....	4,474,272.00					4,474,272.00
Going Value (Cost of Business Development).....	7,792,888.00					7,792,888.00
Working Capital.....	1,701,600.00		1,701,600.00		1,701,600.00	
Total.....	\$73,983,405.57	\$15,421,714.31	\$1,917,123.49	\$14,311,896.15	\$31,650,733.95	\$42,332,671.62

Column A—Reproduction Cost New.

Column B—Property Items for which complete retirement has been provided in Annual Accrual Rates.

Column C—Property Items on which no loss will be incurred on liquidation. (Note—A loss of fifty per cent is estimated for certain parcels of land.)

Column D—Decline in per cent of new condition provided for (22 per cent) plus salvable value on abandonment (15 per cent).

Column E—Sum of Columns B, C and D.

Column F—Estimated net amount subject to amortization.

* Twenty-two per cent applies to \$9,201,130 less \$860,644.

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[fols. 9259-9267] DEFENDANT'S EXHIBIT No. 42

Report Annual Reserve Accruals Required for Lone Star
Gas Company

January 1, 1933

[fol. 9268] General Statement

The property of Lone Star Gas Company as of January 1, 1933, subject to depreciation and/or amortization, consisted of the following major items:

1. Gas well construction, equipment and structures.
2. Well line equipment and structures.
3. Field line equipment and structures.
4. Tap line equipment and structures.
5. Transmission line equipment and structures.
6. Measuring station equipment and structures.
7. Telephone line equipment and structures.
8. Compressor station equipment and structures.
9. Automotive equipment.
10. Drill tools.
11. General structures and equipment.
12. Furniture and Fixtures.
13. General tools and implements.

It will be understood in the subsequent discussion that the designation of the above items is intended to include all costs of installation, rights-of-way costs where property is subject to ultimate abandonment, undistributed general costs, engineering and supervision costs, and all other expenditures that would be lost by abandonment or that would be reincurred in replacement.

Scope of the Investigation

In order that a rational application of the basic principles of depreciation accruals might be made to the depreciable property of Lone Star Gas Company as of January

1, 1933, a comprehensive analysis has been made of the history of Lone Star Gas Company with reference to the [fol. 9269] mortalities of its major property units.

This investigation consisted of a complete analysis of all vouchers of the company covering the replacements, removals and abandonments of pipe from all causes from the beginning of operations to July 1, 1933. The information secured from this exhaustive investigation has been summarized and made a part of this report in the form of schedules covering the replacement, removals and abandonment of pipe by years, lines and sizes of pipe.

A separate analysis has been made of all expenditures for repairs, replacements of fittings, reconditioning of lines and the installation of supplementary equipment of which collar leak clamps are a typical example. The information secured from this analysis has not been transferred from the work sheets.

A history has been compiled of each well (except wells in Petrolia Field) that has been connected to the Lone Star System since the beginning of operation. This history of wells has been divided into two parts, the first consisting of the history of each well that has been permanently disconnected from the system, and the second consisting of the history to date of each well that is now delivering gas to Lone Star Gas Company. The information secured from this investigation has been compiled in the form of schedules setting out the average life of disconnected wells by fields and the average life to date of the wells now in service.

The wells located in the Petrolia Field were not considered in the investigation due to certain unusual and purely local conditions which govern their present operation. The purpose of the study was to develop normal and average conditions and the inclusion of the Petrolia wells would have the effect of introducing an abnormality into the col-[fol. 9270] lection of basic data.

The operating history of each compressor station has been analyzed from the date of its installation to January 1, 1933, and from the information secured appropriate schedules have been prepared and made a part of the report.

The statistical records of the company with reference to the depreciation of automotive equipment is unusually complete and the information secured from this source has

been used with reference to the annual depreciation rate for automotive equipment.

Independent data secured from the results of investigations covering fifty two years and observations of more than 4,900,000 poles have been used in connection with the study of the depreciation rate of telephone line equipment. The data secured from this source were more complete than any information that the company records afforded and may be accepted as authoritative for this class of property.

The minor items of depreciable property have been analyzed for the purpose of determining the proportionate amount of the various types of depreciable property included in each group and the standard annual depreciation rates applicable to each type have been applied.

Where ever it has been apparent from historical consideration, or from the development of the probable life of gas reserves that certain items or groups of physical property would have a life expectancy as physical property which would exceed their service life in situ, the probable loss that would be incurred by abandonment or renewal has been applied as amortization calculated upon a sinking fund basis. In each case the probable salvage value of each property group has been ascertained from an analysis of the structural costs of typical examples of the property group and the estimated net salvage has been treated as a credit to the calculated reserve accrual.

Having in mind the extreme importance of the effect of the rate of growth of the physical property of Lone Star Gas Company upon the history of replacements and abandonments of property units and of the application of these replacements and abandonments expressed as a percentage of the property units to the property units of Lone Star Gas Company in service as of January 1, 1933, a complete analysis has been made of the rate of growth of Lone Star Gas Company expressed in terms of its major physical units subject to depreciation.

It will be understood that Lone Star Gas Company is a comparatively young property, that its oldest major property unit has been in service only twenty one years, that the property as a whole is composed of comparatively large individual units, and that a natural gas transportation company is normally subject to heavy abandonment charges at irregular intervals, and for these reasons it has been

impossible to develop comparatively smooth curves from mortality data.

Purpose of the Investigation

The primary object of the investigation has been the determination of a composite rate expressed as a percentage of the reproduction cost of the depreciable property of Lone Star Gas Company as of January 1, 1933, that should be accrued in order to protect the value of this property from all losses arising from physical deterioration, the cost of replacements, removals, abandonments, major [fol. 9272] rehabilitations and all other losses and costs of like character that will grow out of the future use in the public service of the specific property in service as of January 1, 1933.

As previously noted, the property of Lone Star Gas Company as of January 1, 1933, consisted of various types of physical property with highly variable individual mortality characteristics. As a further complication the particular service rendered by property items of the same type has had in the past and will continue to have in the future a material effect upon the depreciation requirements of these items. This fact is illustrated by the difference in the over-all reserve requirements for steel pipe laid as well lines compared with the reserve requirements for steel pipe laid as main lines.

The depreciable property of Lone Star Gas Company as of January 1, 1933, consisted of a composite of property units that had reached various service lives as of this date with the consequent result that property units of the same type had reached various points in their individual mortality curves.

In the calculation of proper reserve requirements, all of these variable factors must be considered and each factor must be given its proper weight in the final determination. The property as a whole must be classified, not only as to the type of property in use, but also as to the service that the property units will be called upon to render. Where the basic mortality rate is a function of the passage of time this mortality rate must be determined, if possible, by the application of the mathematics of probabilities to the available historical data. Where replacements and removal losses grow out of changed operating conditions, future

[fol. 9273] occurrences of this nature must be measured in the light of past experience together with a proper consideration of conditions existing at the date of inquiry. Finally the service life, or life in service at the date of the investigation, of the major property items in service as of January 1, 1933, must be determined in order that a rational projection may be made of the reserve requirements for the future.

The foregoing statement summarizes in a general way some of the factors that must be considered in the fixing of an annual rate designed to provide for the cost of replacements, removals, abandonments and major rehabilitations in the depreciable property of Lone Star Gas Company as of January 1, 1933.

It must be clear in this connection that this study and the rate that may be developed from it is concerned solely with the future of the specific property units of the Lone Star Gas Company in use in the public service as of January 1, 1933, and not with any capital additions that may be made in subsequent years. Furthermore, it must be clear that any annual rate designed solely to cover the cost of replacements, removals, abandonments and major rehabilitations that will be required in the future in order to maintain this property in status quo, in reference to number of units and in one hundred per cent operating condition, will fail to provide for the inevitable decline in per cent condition of new that will take place in the property, and such an annual rate will fail to provide for the amortization of the ultimate loss that will inevitably take place at such time as the gas reserves commercially available to the markets now served by Lone Star Gas Company will have become depleted.

[fol. 9274] As of January 1, 1933, the per cent condition of the physical property of Lone Star Gas Company was relatively high and after an intensive examination by competent engineers, was fixed at approximately 93 per cent of new. This high per cent of new condition was due in a great measure to a large amount of capital additions made to the property within the past few years which have had the practical effect of reducing the weighted age of the property substantially below its total age, and also to the large amount of replacements made since 1910.

As before stated, the basic limitations of this study require that no consideration be given to the effect of future

capital additions to the present property. In other words, this study is of necessity confined to a projection of the present property into the future, maintained at one hundred per cent operating condition (as is of this date) but not augmented. Under these conditions there will be an inevitable decline in the per cent of new condition of the property of Lone Star Gas Company represented by the units in service as of January 1, 1933. Future capital additions will no doubt modify the rate of decline in per cent of new condition, or even eliminate it when the property as a whole is considered, but this factor can have no bearing upon the results of a study confined to the specific property items (or replacements of them) in service at the date of inquiry.

This gradual decline in per cent condition will be brought about by accrued physical deterioration which cannot be wholly offset by replacements and rehabilitations and will continue until a static condition is reached at which time the weighted per cent condition of the property units in service [fol. 9275] as of January 1, 1933, or their replacements, will be substantially less than the 93 per cent found by the engineers at the date of this inquiry.

Inasmuch as this inevitable loss in future value cannot be offset by renewals and periodic rehabilitations until it has reached a level substantially below 93 per cent, specific provision must be made by means of reserve accruals to cover this loss in value in addition to the reserve accruals designed to provide for the cost of replacements, removals, abandonments and major rehabilitations.

If the reserve accrued for this specific purpose is treated as an independent account, it will differ from the reserves accrued for the cost of replacements, renewals, abandonments and major rehabilitations in that no current withdrawals would be made from it. It would function theoretically at least as a fund created for the necessary purpose of providing the owners of the property with free capital in an amount equal to the sum that would be deducted from that portion of the rate base represented by the property units in service as of January 1, 1933, by reason of accrued depreciation found in the property at some future date.

As the fund represented by this reserve accrual must be free capital in order to offset loss, it follows that the ac-

accruals to it should be made upon a straight-line basis. The rate of the accrual should be measured by the approximate annual rate of decline in per cent condition of the property in service as of January 1, 1933, and the duration of the accrual as applied to the specific property units, or their replacements, in service as of January 1, 1933, should be measured by the time required for the property units to [fol. 9276] reach a static condition relative to per cent of new condition.

In the case of a natural gas production and transportation company whose service life in the final analysis is dependent upon the life of a mineral resource subject to ultimate depletion, a reserve accrual should be made to cover the property loss that will be brought about by the final abandonment of the enterprise. This loss will be represented by the loss of the value of the business, as a going concern, together with the loss of that portion of the value of the physical property, less salvage, represented by the per cent condition of the physical units after they have reached a static per cent of new condition.

In the determination of present value for rate making purposes, no deduction from a rate-base should be made on account of so-called accrued amortization in a property subject to ultimate abandonment. For this reason any reserve made for the purpose of creating a fund designed to provide for loss due to ultimate abandonment should be accrued upon a sinking fund basis.

From the foregoing analysis it will be understood that the total annual reserve accruals necessary to protect the property of Lone Star Gas Company in service as of January 1, 1933, should provide for the losses growing out of the cost of replacements, removals, abandonments and major rehabilitations, the loss in property value growing out of a future decline from present per cent condition, and the loss that will be realized at the date of the depletion of available gas reserves.

It is not the purpose of this investigation to provide a basis for an accounting procedure in the matter of setting [fol. 9277] aside annual reserve accruals. It is strictly an engineering investigation of the history of the property to date, and an analysis of the mortality record of the various property units made for the purpose of estimating the future costs of depreciation and amortization as applied to

the property of Lone Star Gas Company as of January 1, 1933. As will be developed, these costs will fluctuate widely from year to year due to the characteristics of the physical units themselves and to the uncertainty surrounding various phases of the business. The purpose of reserve accruals is the anticipation of these fluctuations and the elimination of their effect upon current operating charges. The average rates suggested, will, therefore be based upon uniform annual accruals.

[fol. 9278]

Lone Star Gas Company

Basic Rate—Steel Pipe

[fol. 9279] Steel pipe laid underground, together with the cost of collateral equipment constituted by far the major item of depreciable property in the property account of Lone Star Gas Company as of January 1, 1933.

In the appraisal of the property as of this date prepared by P. McDonald Biddison, E. A. Steinberger and Ed. C. Connor, the reproduction cost of lines, rights-of-way and equipment, exclusive of undistributed costs, was \$34,604,312. The total reproduction cost of all physical property, exclusive of the value of developed and undeveloped leaseholds, was \$47,733,536.

In view of this fact, it is evident that the determination of a basic annual rate to cover the probable mortalities in steel pipe that will be brought about by the production, gathering and transportation of natural gas by Lone Star Gas Company is the most important single factor in any study concerned with the fixing of annual reserve accruals for this particular property. In this connection, the basic annual rate may be defined as the annual accrual expressed as a percentage of the reproduction cost of the lines which will be required to provide for the cost of normal replacements, the loss by abandonments brought about by the use of the property and the passage of time, and the ultimate net loss in the specific units in service (or their replacements) at the date of this inquiry that will be brought about by the ultimate abandonment or fundamental modification of the enterprise.

Without investigation, it could be assumed that the characteristics of the physical mortalities of steel pipe in service in the system of Lone Star Gas Company would conform in

general way to the behavior of physical property units [L. 9280] whose rate of replacement due to inherent physical characteristics, is comparatively low during early service years and comparatively rapid as the service years approach the average life period of the units. It could also be assumed that the characteristics of the mortalities of steel pipe in service in the system of Lone Star Gas Company would rather definitely follow the general trend of the mortality curve previously developed for steel pipe in service in the system of Fort Worth Division—Lone Star Gas Company.*

These general assumptions provide the basis for the initial steps of the investigation. They were, however, subject to modification in several important particulars.

In the calculation of annual renewal rates for the replacement of steel pipe from the basic data secured from a study of the operating history of Fort Worth Division—Lone Star Gas Company, all replacements, removals and abandonments were included in the mortality analysis without distinction as to the causes of the replacements, removals or abandonments. It is certain that a substantial proportion of the items from which the mortality curve and the distribution curve of annual renewals were developed grew out of inadequacy, public requirements, changed operating conditions, and other factors distinct from the physical nature of the pipe itself. In general, these same factors have a similar application to the pipe in the transportation [L. 9281] and gathering system of Lone Star Gas Company.

In a local distribution system wherein the individual property items replaced, removed or abandoned are relatively small compared to the aggregate amount of these

An exhaustive investigation has been made covering the mortality of steel pipe in the distribution system of the Fort Worth Division—Lone Star Gas Company. Very complete data were available for this study from which mortality curves covering a service experience of more than twenty-five service years were prepared. This study also included the development of mortality curves of gas meters on service line pipe covering a service experience of more than forty years. These studies were the first ever developed for these specific property units.

items in the system taken as a whole, and where the rate of their occurrence as indicated by a study of their occurrence is a function of the passage of time, no material error will arise from a determination of the annual rate for depreciation by the method that was used in this particular analysis.

In this study, all of the pipe in the distribution system except pipe used for service connections was included and the mortality rate determined was assumed to apply to the system as a whole. The pipe in a local distribution system has but one general function—that of delivering gas from fixed points of receipt to individual consumers variously located on the distribution mains. It may be assumed as a normal operating condition that the points of receipt will remain fixed, or may be altered without material effect upon the local lines, and that gas will be delivered at proper pressure for local distribution throughout the life of the property as a natural gas distribution agency. Under these circumstances, the conditions affecting the mortality of pipe may properly be assumed to apply alike to all of the pipe in any given distribution system.

In the case of a pipe line system of a large natural gas producing, gathering and transporting system such as Lone Star Gas Company as of January 1, 1933, an estimate of the proper annual depreciation accruals for steel pipe must take into consideration several important factors that have no application in the determination of depreciation accruals [fol. 9282] for similar property items in local distribution systems.

The steel pipe in the Lone Star System may be divided into two general groups as follows:

1. Main Lines and Tap Lines
2. Field Lines and Well Lines

Unlike the pipe in a distribution system which may be treated as a unit, the necessary depreciation accruals for each of the above noted groups of pipe line classification will be directly affected by the type of service the pipe is called upon to render. For this reason, it will be necessary to treat each group as an independent property unit, and to give proper weight in each case to the controlling factors characteristic of the particular type of service rendered by the property group.

In the pipe line system of Lone Star Gas Company as of January 1, 1933, certain designated lines were relatively large compared to the system as a whole. This condition has existed in the past and will continue to exist in the future. The history of the company has demonstrated that in the case of designated main lines, changed operating conditions have brought about heavy reserve charges at irregular intervals due to the fact that large sections of lines, and in some cases lines — a whole, have been removed from their original locations and relaid in other locations more advantageously situated from an operating standpoint. These removals of main lines, and the assurance of similar removals at indeterminate future dates create a problem that has no particular relation to the basic mortality rate which is largely a function of use and the passage of time. For this reason, they must be treated as independent problems together with the collateral question for the salvage value of the materials of construction transferred and relaid.

In the case of Field Lines whose service life in a given location will be in a measure dependent upon the production of gas from a limited area, the factor of loss caused by removals will be a most important element in the fixing of reserve accrual rates for this group of lines. In the case of well lines whose service life in a given location will be largely dependent upon the life of one or more gas wells, the factor of loss caused by removals will be a predominant element in the fixing of reserve accrual rates for this group of lines.

Fortunately for the purposes of this study, the history of the company in past years affords a fairly definite basis for an estimate of future probabilities with reference to the annual rate of removals for both Field Lines and Well Lines.

The history of Lone Star Gas Company also discloses the fact that heavy charges to the depreciation reserve account and other large expenditures not so charged have been incurred by reason of the wholesale overhauling and rehabilitation of large sections of lines. This work, in most cases, has been directed to the correction of joint failures and the renewal of pipe protection, and in every case the cost of labor has been the predominant element of expense.

Any study of mortality data that is confined to the replacement, removal and abandonment of pipe will fail to give proper consideration to the necessity for reserve accruals to cover recurring expenses of this nature.

From the foregoing facts, it will be clear that the necessary reserve accrual for steel pipe laid underground in the system of Lone Star Gas Company will be a composite figure determined by the cumulative effect of the basic mortality rate for steel pipe, the net cost of removals and abandonments brought about by changed operating conditions, the cost of major rehabilitations together with the loss in value due to the normal decline in per cent condition, and the ultimate loss brought about by the abandonment or basic modification of the enterprise.

[fol. 9285]

Basic Mortality Data

Steel Pipe

[fol. 9286] For the purpose of developing basic mortality data for steel pipe in the system of Lone Star Gas Company, a complete analysis has been made of all available records having any bearing upon the historic replacement, removal or abandonment of pipe or lines from the beginning of operations in 1910 through the month of June, 1933. The results of this analysis have been made a part of this report in the following enumerated schedules and recapitulations:

1. Recapitulation of Pipe Replacements, Removals and Abandonments by Years, Sizes, and Feet of Pipe.
2. Main Line Replacements, Removals and Abandonments by Lines, Years, Sizes and Feet of Pipe.
3. Tap Line Replacements, removals and Abandonments by Lines, Years, Sizes, and Feet of Pipe.
4. Field Line (Gathering Line) Replacements, Removals and Abandonments by Lines, Years, Sizes, and Feet of Pipe.
5. Well Line Replacements, Removals and Abandonments by Lines, Years, Sizes, and Feet of Pipe.
6. Consolidated Summary of Main Line and Tap Line Replacements, Removals and Abandonments by Years, Sizes and Feet of Pipe.

7. Consolidated Summary of Well Line and Field Line (Gathering Line) Replacements, Removals and Abandonments by Years, Sizes, and Feet of Pipe.

In each schedule and recapitulation, the feet of pipe of the various sizes replaced, removed or abandoned have been reduced to a length of pipe expressed in terms of equivalent three inch diameter pipe.

In prior years, it had been the practice of the accounting section of Lone Star Gas Company to make no recorded distinction between the replacements, removals and abandonments of Tap Lines and the replacements, removals and abandonments of the particular designated Main Line of which the Tap Lines have been an integral part. For this [fol. 9287] reason, it was possible to identify and segregate only a portion of the mortalities specifically attributable to Tap Lines, the other portion of the mortalities having been included as a part of the replacements, removals and abandonments of Main Lines.

In order that the effect of this former practice of the accounting section might be eliminated, the mortalities of Main Lines and Tap Lines have been consolidated as has the footage of pipe in use for various service years in both property groups. This consolidation is a logical one inasmuch as the Main Lines and Tap Lines constitute an integral transportation unit having uniform service characteristics as distinguished from the service characteristics of that portion of the pipe line system used in the production and gathering phases of the business.

What has been said relative to the former practice of the accounting section with reference to the recorded mortalities of designated Main Lines and the mortalities of Tap Lines having the same basic designation is also true of the recorded mortalities of certain Gathering Lines and Well Lines connected to these Gathering Lines. For this reason, the mortalities of Field Lines (Gathering Lines) and Well Lines have been consolidated as has been the footage of pipe in use for various service years in both property groups. This consolidation is also a logical one inasmuch as Field Lines and Well Lines have similar service characteristics and constitute an integral production and gathering unit.

An inspection of these schedules discloses the fact that the replacements, removals and abandonments of pipe in

lines designated as Main Lines and Tap Lines constituted [fol. 9288] the major portion of the replacements, removals and abandonments of all pipe in service since 1910. Furthermore, as has been previously noted and as will be subsequently developed in detail, the designated Main Lines and Tap Lines have not been so materially affected by abandonments as has been the case with reference to Field Lines and Well Lines whose service life in situ has been more or less determined by the life of limited gas producing areas and frequent changes in operating conditions brought about by the lack of uniformity in the decline of well pressures and volumes.

While large sections of the major lines as well as the Tap Lines have been removed and relaid as other designated lines, these removals can be identified and thus segregated from the other data. In view of the fact that more definite consideration can be given to the data that are applicable to the development of true mortality curves, the history of Main Line and Tap Lines only has been used in the calculations upon which the mortality curve has been based.

The tabulation—Main Line Replacements, Removals and Abandonments, shows that 5,362,659 feet of three inch equivalent diameter pipe have been replaced, removed or abandoned in the designated Main Lines of Lone Star Gas Company from 1910 to July 1, 1933. This tabulation, as previously noted, includes some mortalities that are in fact attributable to certain Tap Lines. This inaccuracy is corrected by the tabulation which consolidates the mortalities of Main Lines and Tap Lines.

This tabulation does not include all of the historic mortalities in the designated Main Lines for the reason that the very early records of the company do not furnish voucher authority for the inclusion of certain outright abandonments of pipe in Line A, and for the further reason that no [fols. 9289-9293] replacements, removals or abandonments in pipe line properties acquired by purchase by Lone Star Gas Company, and which replacements, removals and abandonments were made by other owners prior to the date of purchase, have been included in this study.

The tabulation—Tap Line Replacements, Removals and Abandonments, shows that 703,966 feet of pipe of three inch equivalent diameter have been replaced, removed or abandoned in the designated Tap Lines of Lone Star Gas Com-

pany from 1910 to July 1, 1933. This tabulation as previously noted does not include certain mortalities that are in fact attributable to the pipe in Tap Lines, but which have been included as a part of the mortalities of Main Lines. This inaccuracy is corrected by the tabulation which consolidates the mortalities of Main Lines and Tap Lines.

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Defendant's Exhibit No. 42—Continued
 Recapitulation of Pipe Replacements, Removals, and Abandonments
 By Years, Sizes, and Feet of Pipe—July 1, 1933

[fol. 9204]

Year	2 Inch	3 Inch	4 Inch	6 Inch	8 Inch	10 Inch	12 Inch	16 Inch	18 Inch	20 Inch	Totals	3 Inch Equivalent
1911.....								92			92	491
1912.....	79		167,213								167,292	222,997
1913.....	118						8				152	167
1914.....	6,217		7,364	20							13,581	13,963
1915.....	120			513				7,435			8,148	41,002
1916.....	455			131,538		71		5,308			137,597	292,477
1917.....	220		19,633	64,855	296			274,426			602,459	2,592,931
1918.....			156	76			243,325	65			297	707
1919.....	614			4		820	140				1,578	3,710
1920.....	5,048		14,692	45,786	3,723	1,144	379	110			70,882	130,371
1921.....	1,297			16,088	8,774	10,974	154	282			43,465	103,033
1922.....	3,725		78,930	19,880	2,099	13,536	209	701	7		119,096	202,868
1923.....	3,642		24,067	130,063	84,574	14,562	1,191	4,063	16		262,207	595,417
1924.....	10,179	38	32,274	35,665	1,402	6,551	589	2,785	45		89,516	164,168
1925.....	4,983		31,936	59,147	8,062	3,453	11,111	1,649	33		120,684	252,503
1926.....	731	356	22,318	105,004	24,514	19,937	3,484	4,418	60		180,822	410,297
1927.....	1,611		23,679	61,463	11,373	19,717	10,647	2,573	1,426		226,868	502,130
1928.....	33,786	2,920	57,584	31,554	15,416	78,895	3,638	2,691	684		219,073	405,269
1929.....	18,271	129	100,302	61,656	19,656	1,420	11,843	5,127	639	30	242,490	447,639
1930.....	31,290	44	103,518	69,930	14,373	3,731	6,479	9,810	3,275	30	350,195	874,112
1931.....	53,155	483	74,116	111,093	7,099	17,432	18,314	66,184	2,319	120	73,749	111,460
1932.....	25,079	980	26,474	14,666	887	1,849	296	2,657	7,819		47,087	218,446
1933 (6 Mo.).....	319	282	3,415	1,229	6,442	1,145		27,436				
Totals.....	200,948	4,932	793,560	960,230	208,696	194,237	311,807	417,812	17,407	180	3,109,809	7,902,647

Defendant's Exhibit No. 42—Continued

Recapitulation of Main and Tap Line Replacements, Removals, and Abandonments

By Years, Sizes, and Feet of Pipe—July 1, 1933.

Year	2 Inch	3 Inch	4 Inch	6 Inch	8 Inch	10 Inch	12 Inch	16 Inch	18 Inch	20 Inch	Totals	3-Inch Equivalent
1911.....								92			92	491
1912.....	79		167,213								167,292	222,987
1913.....	118							8			132	127
1914.....	6,217		7,364								13,581	13,963
1915.....	129			472				7,435			8,036	40,683
1916.....	90			131,538	296			5,308			137,232	292,234
1917.....	220		19,296	64,855			243,325	274,426			602,122	2,592,482
1918.....				76				65			141	499
1919.....	614			4		820	140				1,578	3,710
1920.....	4,789			8,036	154	381	39	20			13,419	21,208
1921.....	29		411	191	3,114	656	154	282	7		4,844	13,602
1922.....	68		52,635	1,825	20	1,413	149	701	16		56,827	83,067
1923.....	1,673		9,351	108,847	83,955	13,867	1,191	4,063	45		222,992	528,084
1924.....	9,785		10,696	5,454	1,259	2,457	580	2,785	33		33,029	60,531
1925.....	517		3,516	15,772	1,349	3,429	11,101	1,649	343		37,676	106,861
1926.....	596		3,229	24,274	4,054	780	3,233	4,418	60		40,644	103,517
1927.....	139		10,188	27,958	1,148	8,652	10,431	2,573	1,426		62,515	165,496
1928.....	8,574	72	6,719	8,188	15,416	78,761	3,093	2,691	684		124,198	365,595
1929.....	7,293	85	94,508	30,142	3,988	1,331	11,693	5,053	639	30	154,762	284,068
1930.....	8,622	44	48,324	28,437	12,966	3,362	5,495	9,723	3,213	30	120,216	266,193
1931.....	1,813	345	47,034	58,995	4,341	8,966	17,845	66,184	2,319		207,842	661,992
1932.....	89		166	594	880	887	296	2,657	741	120	6,430	27,374
1933 (6 Mo.).....	73		253	581	6,400			27,436	7,819		42,562	211,853
Totals.....	51,527	546	480,903	516,239	139,846	125,762	308,753	417,561	17,345	180	2,058,162	6,066,627

Defendant's Exhibit No. 42—Continued

Recapitulation of Main Line Replacements, Removals, and Abandonments

By Years, Sizes, and Feet of Pipe—July 1, 1933

Year	2 Inch	3 Inch	4 Inch	6 Inch	8 Inch	10 Inch	12 Inch	16 Inch	18 Inch	20 Inch	Totals	3-Inch Equivalent
1911.....								92			92	491
1912.....			167,213								167,213	222,945
1913.....							8				8	32
1914.....			7,364								7,364	9,818
1915.....								7,435			7,435	39,653
1916.....								5,308			5,308	28,309
1917.....				64,855			243,325	274,426			582,606	2,566,608
1918.....				76				65			141	499
1919.....				4		820	140				964	3,301
1920.....				8,036		318	89	20			8,413	17,395
1921.....					2,679	623	154	282			3,774	11,402
1922.....			2,613	1,825	20	1,377	149	201	7		6,269	13,586
1923.....			7,726	108,632	83,374	10,994	1,191	3,253	45		215,371	509,031
1924.....			10,474	5,370	438	2,231	549	2,259	33		21,375	47,766
1925.....			3,494	14,811	1,296	3,216	11,101	1,649	343		35,910	103,714
1926.....			3,117	6,430	3,858	582	3,221	4,418	60		22,099	66,326
1927.....			10,125	15,458	4	8,652	10,431	2,458	1,426		48,670	136,733
1928.....			6,574	7,822	15,292	78,761	3,093	4,668	684		114,209	348,650
1929.....			93,488	29,429	3,859	1,311	11,693	4,859	639	30	146,490	275,676
1930.....			24,825	16,466	5,124	3,164	5,454	9,626	3,213	30	73,127	186,366
1931.....			25,857	36,893	3,387	8,838	14,198	62,910	2,319		155,167	553,498
1932.....			47	222	819	887	275	2,657	741	120	5,768	26,165
1933 (6 Mo.).....			189	581				27,436	7,819		36,092	194,697
Totals.....	9,264	93	363,106	316,910	120,150	121,774	305,021	410,022	17,345	180	1,663,865	5,362,659

[fol. 9286]

Defendant's Exhibit No. 42—Continued

Recapitulation of Tap Line Replacements, Removals, and Abandonments

By Years, Sizes, and Feet of Pipe—July 1, 1933

Year	2 Inch	3 Inch	4 Inch	6 Inch	8 Inch	10 Inch	12 Inch	16 Inch	Totals	3 Inch Equivalent
1912	79	...	...	...	...	...	...	...	79	52
1913	118	...	...	...	6	...	...	...	124	95
1914	6,217	...	...	...	...	...	...	...	6,217	4,145
1915	129	...	...	472	...	...	...	...	601	1,030
1916	90	...	...	131,538	296	...	...	...	131,924	263,925
1917	220	...	19,296	...	...	...	...	...	19,516	25,874
1918	614	...	...	...	...	...	...	...	614	409
1919	4,780	...	...	...	154	63	...	...	5,006	3,813
1920	...	...	411	191	435	33	...	...	1,070	2,200
1921	...	...	50,022	...	...	36	...	500	50,568	69,481
1922	...	...	1,625	215	581	2,873	...	810	7,621	19,053
1923	1,517	...	222	84	821	226	11	526	11,654	12,765
1924	9,764	...	...	961	53	213	...	...	1,766	3,147
1925	517	...	112	17,844	196	198	12	...	18,545	37,191
1926	183	...	63	12,500	1,144	...	...	175	13,845	28,763
1927	23	...	145	366	124	...	...	2,023	9,989	16,945
1928	7,295	36	...	713	129	20	...	194	8,272	8,392
1929	6,111	85	1,020	...	7,842	198	41	97	47,089	79,827
1930	3,422	19	23,499	11,971	954	128	3,647	3,274	52,675	108,494
1931	1,080	313	21,177	22,102	61	...	21	...	662	1,209
1932	89	...	119	372	6,400	...	...	...	6,470	17,156
1933 (Six Months)	6	...	64	...	...	...	...	...	...	...
Totals	42,263	453	117,797	190,329	19,196	3,988	3,732	7,539	394,297	703,966

Defendant's Exhibit No. 42—Continued

Recapitulation of Field and Well Line Replacements, Removals, and Abandonments

By Years, Sizes, and Feet of Pipe—July 1, 1933

Year	2 Inch	3 Inch	4 Inch	6 Inch	8 Inch	10 Inch	12 Inch	16 Inch	18 Inch	Totals	3 Inch Equivalent
1913.....										20	40
1915.....				20		71				112	319
1916.....	365			41						365	243
1917.....			337							337	449
1918.....			156							156	208
1920.....	259		14,692	37,750	3,569	763	340	90		57,463	109,163
1921.....	1,268		5,478	15,897	5,660	10,318				28,621	89,431
1922.....	3,657		26,295	18,055	2,079	12,123	60			62,269	119,801
1923.....	1,969		14,716	21,216	619	695				39,215	67,333
1924.....	394	38	21,578	30,211	143	4,094	29			56,487	103,637
1925.....	4,466		28,420	43,375	6,713	24	10			83,008	145,642
1926.....	135	356	19,089	80,730	20,460	19,157	251			140,178	306,790
1927.....	1,472		13,491	33,505	10,225	11,065	216			69,974	150,993
1928.....	25,212	2,548	50,865	23,366		134	545			102,670	136,535
1929.....	10,978	44	5,794	31,514	15,668	89	150	74		64,311	121,201
1930.....	22,668		55,194	41,493	1,407	369	984	87	62	122,264	181,446
1931.....	51,342	138	27,082	52,098	2,758	8,466	469			142,353	212,120
1932.....	24,990	980	26,308	14,072	7	962				67,319	84,086
1933 (6 Months).....	246	282	3,162	648	42	145				4,525	6,593
Totals.....	149,421	4,386	312,657	443,991	69,350	68,475	3,054	251	62	1,051,647	1,836,020

[fol. 9298].

Defendant's Exhibit No. 42--Continued

Recapitulation of Field Line Replacements, Removals, and Abandonments

By Years, Sizes, and Feet of Pipe--July 1, 1933

Year	2 Inch	3 Inch	4 Inch	6 Inch	8 Inch	10 Inch	12 Inch	16 Inch	18 Inch	Totals	3 Inch Equivalent
1920	240	.....	190	4,222	.....	391	.....	.....	.....	5,043	10,161
1921	1,246	.....	1,665	14,177	4,796	10,119	.....	.....	.....	32,003	77,924
1922	2,986	.....	16,993	9,118	2,079	11,904	60	.....	.....	43,140	88,348
1923	1,458	.....	6,950	11,145	566	1,303	.....	.....	.....	20,422	35,048
1924	353	.....	10,549	16,719	143	104	29	.....	.....	27,897	48,582
1925	1,522	.....	15,186	31,153	6,468	.....	10	.....	.....	54,339	100,856
1926	113	.....	16,171	69,299	7,013	.....	251	.....	.....	92,757	179,760
1927	541	.....	10,231	33,407	7,434	10,972	216	.....	.....	62,801	138,078
1928	560	.....	2,410	22,922	.....	41	545	.....	.....	26,478	51,748
1929	94	44	5,705	27,146	15,668	28	150	74	.....	48,909	104,874
1930	454	.....	27,749	28,897	157	211	984	87	62	58,601	100,990
1931	34,079	45	15,952	25,000	.....	86	469	.....	.....	75,631	96,196
1932	.....	.....	204	.....	.....	.....	.....	.....	.....	75,204	96,272
1933 (Six Months)	85	.....	.....	39	42	.....	.....	.....	.....	166	287
Totals:	43,731	89	129,955	293,154	44,366	34,159	2,714	161	62	548,391	1,033,124

[Col. 9290]

Defendant's Exhibit No. 42—Continued

Recapitulation of Well Line Replacements, Removals and Abandonments

[Fols. 9300-9302]

By Years, Sizes, and Feet of Pipe—July 1, 1933

Year	2 Inch	3 Inch	4 Inch	6 Inch	8 Inch	10 Inch	12 Inch	16 Inch	Totals	3 Inch Equivalent
1913.....				20					20	40
1915.....				41		71			112	319
1916.....	365								365	243
1917.....			337						337	449
1918.....			156						156	208
1920.....	19		14,502	33,528	3,569	372	340	90	52,420	99,002
1921.....	22		3,813	1,720	864	199			6,618	11,507
1922.....	671		9,302	8,937		219			19,129	31,453
1923.....	511		7,766	10,071	53	392			18,793	32,285
1924.....	41	38	11,029	13,492		3,990			28,590	55,055
1925.....	2,944		13,234	12,222	245	24			28,669	44,786
1926.....	22	356	2,918	11,521	13,447	19,157			47,421	127,020
1927.....	931	2,548	3,260	98	2,791	93			7,173	12,915
1928.....	24,652		48,455	444		93			76,192	84,757
1929.....	10,884		89	4,368		61			15,402	16,327
1930.....	22,214		27,445	12,596	1,250	188			63,663	80,456
1931.....	17,263	93	11,130	27,098	2,758	8,390			80,170	115,924
1932.....	24,990	980	26,104	14,072	7	962			67,115	83,814
1933 (Six Months).....	161	282	3,162	609		145			4,359	6,306
Totals.....	105,690	4,297	182,702	150,837	24,984	34,316	340	90	503,256	802,896

Defendant's Exhibit No. 42—Continued

[fol. 9303] Analysis of Rate of Growth of Pipe Line System as of January 1, 1933

Combined Summary of Main, Tap, Field, and Well Lines

Year	Main Lines 3-Inch Equiva- lent— Miles	Tap Lines 3-Inch Equiva- lent— Miles	Field Lines 3-Inch Equiva- lent— Miles	Well Lines 3-Inch Equiva- lent— Miles	Total	Percent	Cumu- lative Percent
1909...				3.61	2.61	.02	.02
1910...	646.54	8.11		10.04	664.69	5.60	5.62
1911...		50.16			50.16	.42	6.04
1912...		16.65		2.08	18.73	.16	6.20
1913...	357.85	22.89	21.72	.60	403.06	3.40	9.60
1914...	279.41			.16	279.57	2.36	11.96
1915...		5.30		3.10	8.40	.07	12.03
1916...	301.79	70.83		4.85	377.47	3.18	15.21
1917...				.15	.15		15.21
1918...	57.69		2.41	6.09	66.19	.56	15.77
1919...	498.88	.56	58.30	12.25	569.99	4.80	20.57
1920...	599.05	42.99	97.37	2.68	742.09	6.25	26.82
1921...	63.17	1.04	35.86	1.39	101.46	.86	27.68
1922...	92.08	54.26	1.61	8.99	156.94	1.32	29.00
1923...	231.93	27.57	8.98	15.48	283.96	2.39	31.39
1924...	194.68	8.29	96.46	31.06	330.49	2.79	34.18
1925...	82.23	49.51	36.61	9.21	177.56	1.50	35.68
1926...	1,709.32	190.75	81.73	14.60	1,996.40	16.82	52.50
1927...	1,326.79	517.11	34.12	10.68	1,888.70	15.92	68.42
1928...	334.57	517.41	149.11	32.87	1,033.96	8.71	77.13
1929...	839.90	572.51	297.53	57.03	1,766.97	14.89	92.02
1930...	40.62	111.64	199.40	67.41	419.07	3.53	95.55
1931...	44.11	.80	25.36	31.92	102.19	.86	96.41
1932...	326.84	1.02	60.31	38.21	426.38	3.59	100.00
Total	8,027.45	2,269.40	1,206.88	363.46	11,867.19	100.00	

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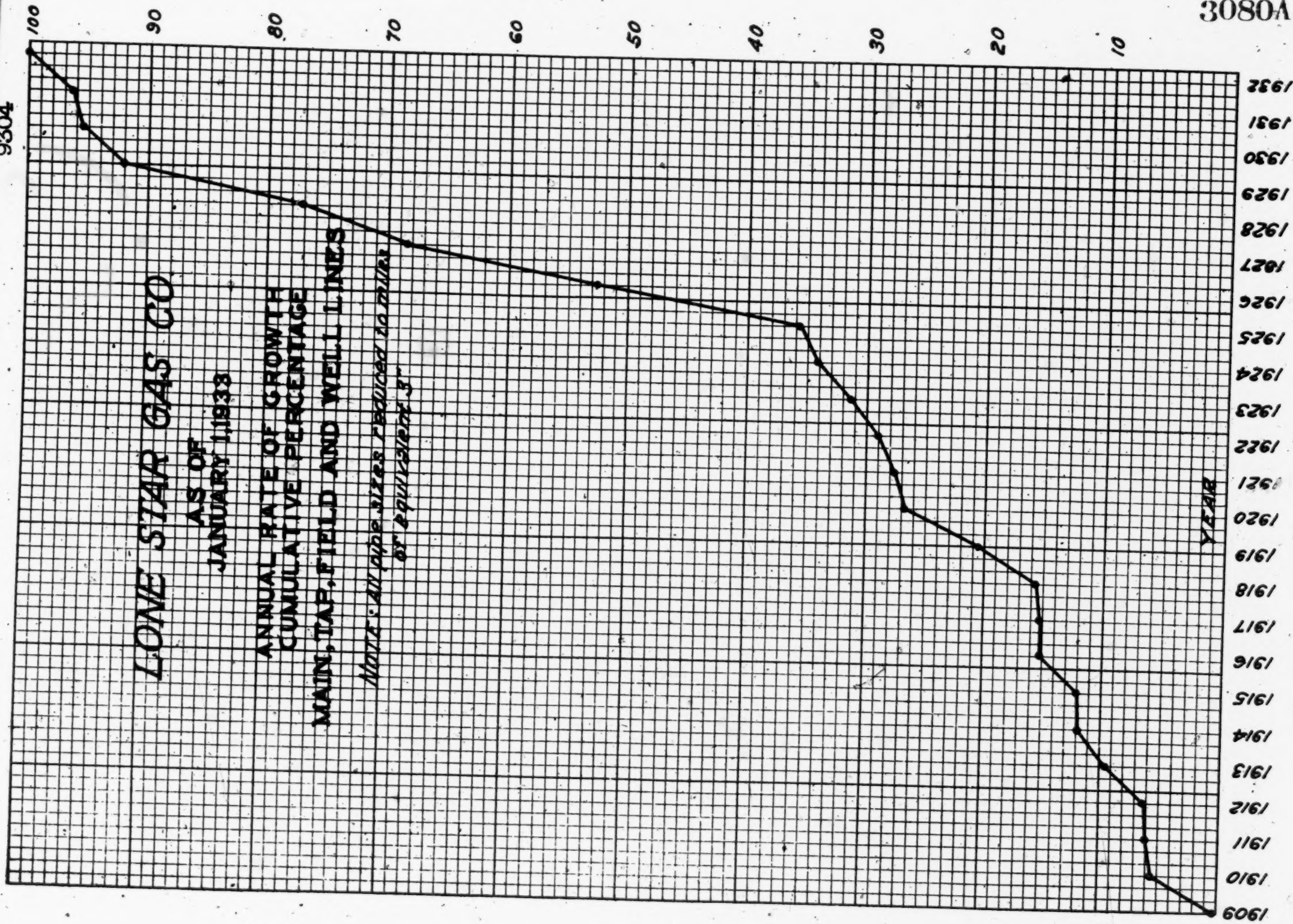
LONE STAR GAS CO

AS OF
JANUARY 1, 1933

ANNUAL RATE OF GROWTH
CUMULATIVE PERCENTAGE

MAIN, TAP, FIELD AND WELL LINES

*NOTE: All pipe sizes reduced to main
or equivalent 3"*



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Defendant's Exhibit No. 42—Continued

[fols. 9305-9306]

Lone Star Gas Company

Analysis of Rate of Growth of Pipe Line System
as of January 1, 1933

Summary of Main Lines

Year	Miles 3-Inch Equivalent	Percent	Cumulative Percent
1909.....			
1910.....	646.54	8.05	8.05
1911.....			8.05
1912.....			8.05
1913.....	357.85	4.46	12.51
1914.....	279.41	3.48	15.99
1915.....			15.99
1916.....	301.79	3.76	19.75
1917.....			19.75
1918.....	57.69	.72	20.47
1919.....	498.88	6.21	26.68
1920.....	599.05	7.46	34.14
1921.....	63.17	.79	34.93
1922.....	92.08	1.15	36.08
1923.....	231.93	2.89	38.97
1924.....	194.68	2.43	41.40
1925.....	82.23	1.02	42.42
1926.....	1,709.32	21.29	63.71
1927.....	1,326.79	16.53	80.24
1928.....	334.57	4.17	84.41
1929.....	839.90	10.46	94.87
1930.....	40.62	.51	95.38
1931.....	44.11	.55	95.93
1932.....	326.84	4.07	100.00
Totals.....	8,027.45	100.00	

[fols. 9307-9308]

Summary of Tap Lines

1909.....			
1910.....	8.11	.36	.36
1911.....	50.16	2.21	2.57
1912.....	16.65	.73	3.30
1913.....	22.89	1.01	4.31
1914.....			4.31
1915.....	5.30	.23	4.54
1916.....	70.83	3.12	7.66
1917.....			7.66
1918.....			7.66
1919.....	.56	.03	7.69
1920.....	42.99	1.89	9.58
1921.....	1.04	.05	9.63
1922.....	54.26	2.39	12.02
1923.....	27.57	1.21	13.23
1924.....	8.29	.37	13.60
1925.....	49.51	2.18	15.78
1926.....	190.75	8.41	24.19
1927.....	517.11	22.79	56.98
1928.....	517.41	22.80	69.78
1929.....	572.51	25.23	95.01
1930.....	111.64	4.92	99.93
1931.....	.80	.03	99.96
1932.....	1.02	.04	100.00
Totals.....	2,269.40	100.00	

Defendant's Exhibit No. 42—Continued

[fols. 9309-9310]

Summary of Well Lines

Year	Miles 3-Inch Equivalent	Percent	Cumulative Percent
1909.....			
1910.....			
1911.....			
1912.....			
1913.....	21.72	1.80	1.80
1914.....			1.80
1915.....			1.80
1916.....			1.80
1917.....			1.80
1918.....	2.41	.29	2.09
1919.....	58.30	4.83	6.83
1920.....	97.37	8.07	14.90
1921.....	35.86	2.97	17.87
1922.....	1.61	.13	18.00
1923.....	8.98	.75	18.75
1924.....	96.46	7.99	26.74
1925.....	36.61	3.03	29.77
1926.....	81.73	6.77	36.54
1927.....	34.12	2.83	39.37
1928.....	149.11	12.36	51.73
1929.....	297.53	24.65	76.38
1930.....	199.40	16.52	92.90
1931.....	25.36	2.10	95.00
1932.....	60.31	5.00	100.00
Total.....	1,206.88	100.00	

[fols. 9311-9313]

Summary of Field Lines

1909.....	2.61	.72	.72
1910.....	10.04	2.76	3.48
1911.....			3.48
1912.....	2.08	.57	4.05
1913.....	.60	.17	4.22
1914.....	.16	.05	4.27
1915.....	3.10	.85	5.12
1916.....	4.85	1.33	6.45
1917.....	.15	.04	6.49
1918.....	6.09	1.68	8.17
1919.....	12.25	3.37	11.54
1920.....	2.68	.74	12.28
1921.....	1.39	.38	12.66
1922.....	8.99	2.47	15.13
1923.....	15.48	4.28	19.39
1924.....	31.06	8.55	27.94
1925.....	9.21	2.53	30.47
1926.....	14.60	4.02	34.49
1927.....	10.68	2.94	37.43
1928.....	32.87	9.04	46.47
1929.....	57.03	15.69	62.16
1930.....	67.41	18.55	80.71
1931.....	31.92	8.78	89.49
1932.....	38.21	10.51	100.00
Total.....	363.46	100.00	

[fols. 9314-9321]

Definitions

The primary objects of this phase of the investigation are the determination of the probable future rate of failure of steel pipe in service in the pipe line system of Lone Star Gas Company, caused primarily by the physical condition of the pipe, and the probable future rate of replacements, removals and abandonments of pipe, or lines caused primarily by changed operating conditions, or by public requirements.

The probable future rate of failure, and the probable future rate of replacements, removals and abandonments have been estimated from the distribution curves of annual replacements, removals and abandonments developed from primary mortality curves independently determined for mortalities caused primarily by the physical condition of the pipe, and for mortalities caused primarily by changed operating conditions, or public requirements.

As previously noted, the rate of failure of pipe caused primarily by the physical condition of the pipe, when expressed as a percentage of the amount of pipe in service, will be a function of the passage of time. This rate will be a variable percentage that will increase as the indicated average life period of the pipe is reached, and will become the predominant factor in the total annual rate required as the age of the property increases.

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[fol. 9322] Development of Mortality Curves and Distribution Curves

Mortality Curve I, and Distribution Curve I

During the year 1931, a mortality curve was developed for steel pipe in service in the system of Lone Star Gas Company. The purpose of the development of this curve was to fix the basis for an estimate of the probable future rate of failure of steel pipe in service due primarily to physical causes. From this primary mortality curve, there was also developed a distribution curve of annual failures of original units. The ordinates of this curve for each service year corresponded to the increase in mortality percentage of original units for corresponding service years as determined by the slope of the mortality curve. Calcula-

tions were also made reflecting the effect of replacements of replacements upon the distribution curve of the replacement of original units. These calculations covered a period of fifty-two service years.

In this report, these curves are shown in the graph—Lone Star Gas Company Depreciation Analysis—Mortality Curve I.

The calculations covering the effect of replacement of original units, and replacements of replacements is shown in the calculation—Calculation of Total Annual Renewal Rates. These renewal rates are based solely upon the Mortality Curve I.

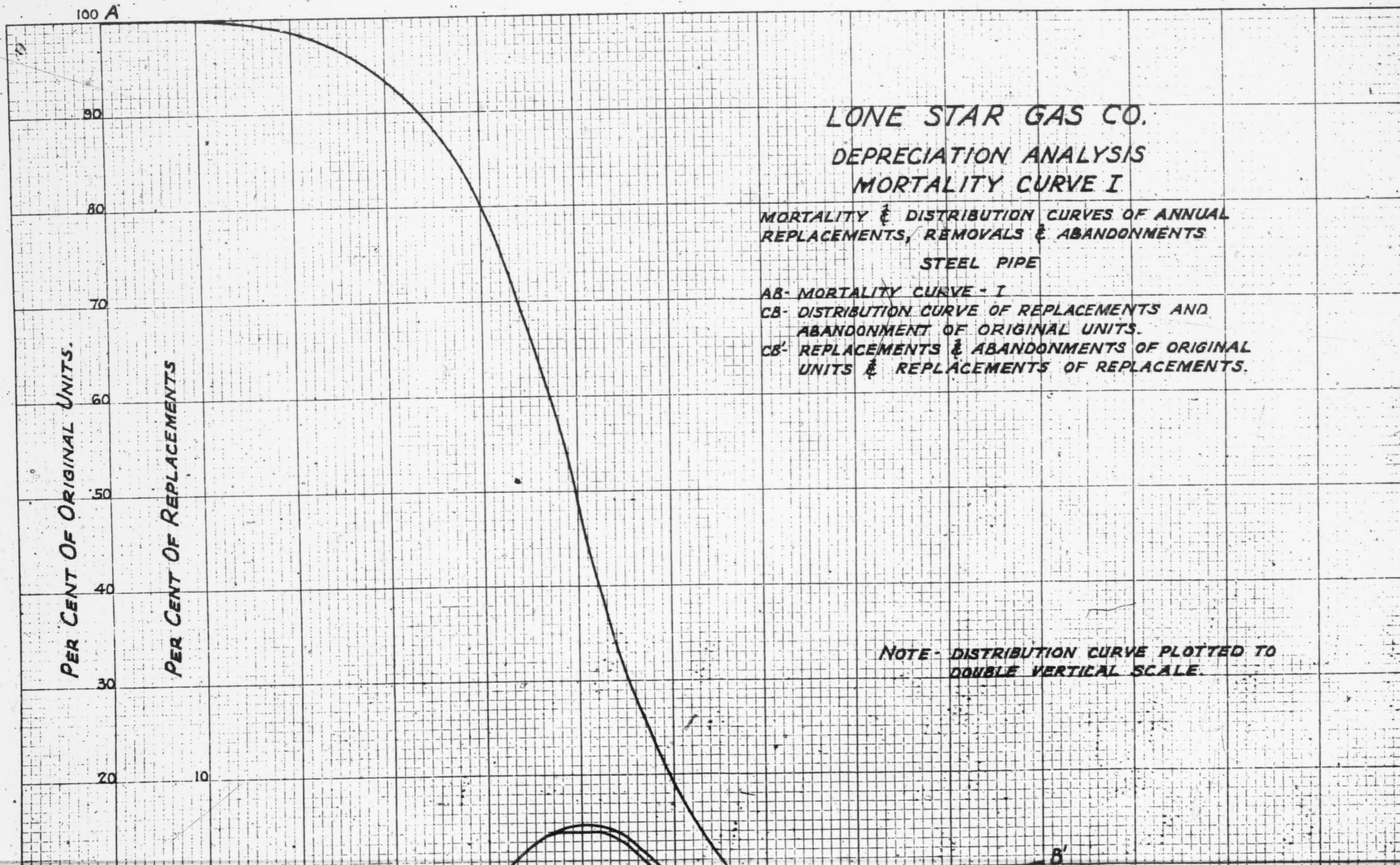
The ordinates taken from the distribution curve of the annual replacements of original units, and the distribution curve of the annual replacements of original units and replacements of replacements are also shown in tabular form in the tabulation—Annual Renewal Rates Steel Pipe—Lone Star Gas Company, from Mortality Curve I.

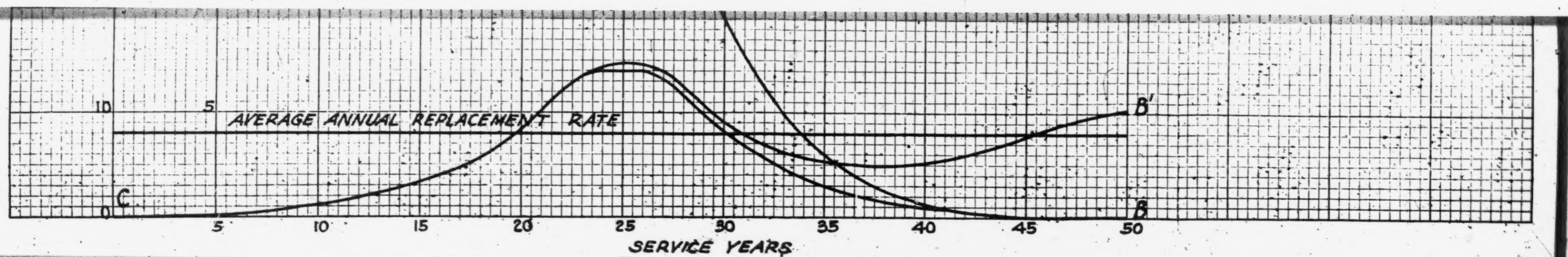
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LONE STAR GAS CO.

DEPRECIATION ANALYSIS

MORTALITY CURVE III

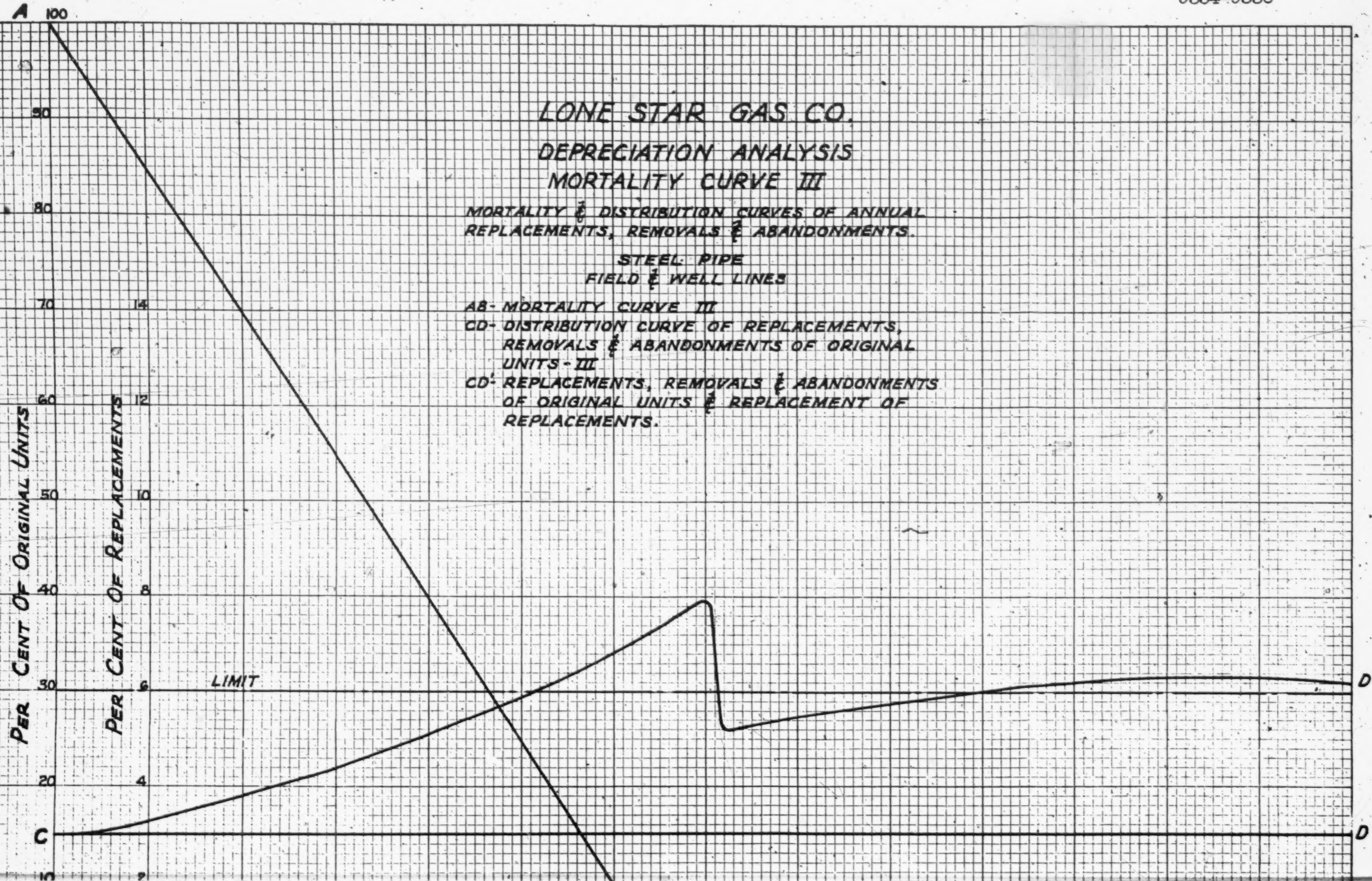
MORTALITY & DISTRIBUTION CURVES OF ANNUAL
REPLACEMENTS, REMOVALS & ABANDONMENTS.

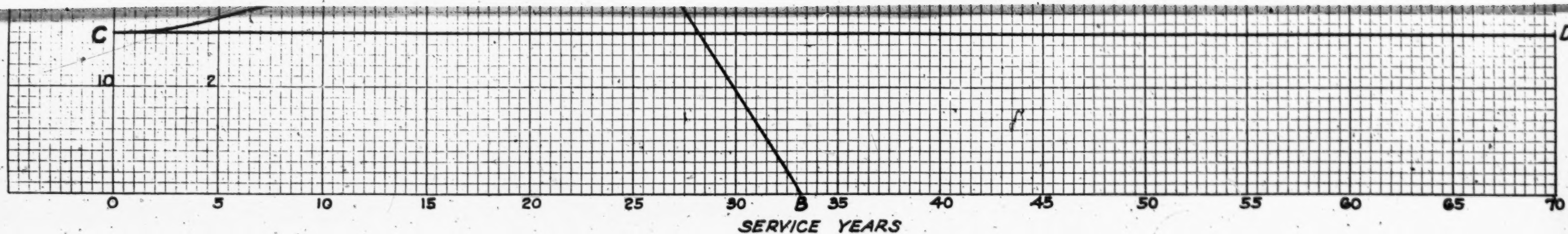
STEEL PIPE
FIELD & WELL LINES

AB - MORTALITY CURVE III

CD - DISTRIBUTION CURVE OF REPLACEMENTS,
REMOVALS & ABANDONMENTS OF ORIGINAL
UNITS - III

CD' - REPLACEMENTS, REMOVALS & ABANDONMENTS
OF ORIGINAL UNITS & REPLACEMENT OF
REPLACEMENTS.





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[fol. 9339] **Allocation of Historic Mortalities and Determination of Effective Service Years**

In order that the Primary Test could be applied to any mortality curve under investigation, it was necessary:

First. To make an allocation of the historic mortalities of steel pipe in the Main Lines and Tap Lines of Lone Star Gas Company from 1910 to July 1, 1933, this allocation to consist of a distribution of the total mortalities to Major Removals to Major Replacements due primarily to changed operating conditions, or public requirements, and to mortalities due primarily to the physical condition of the pipe.

Second. To determine the effective service life of the Main Lines and Tap Lines in service in the system of Lone Star Gas Company prior to January 1, 1933, together with the effective service life of such lines as had been in service but which had been replaced prior to January 1, 1933, and for which lines replacements, removals and abandonments have been included in the total mortalities for Main Lines and Tap Lines.

The necessity for the determination of these basic factors grows out of the fact that the Primary Test for Mortality Curve I is based upon the application of the cumulative percentage of mortalities for given service years determined by the slope of the curve to the amount of pipe in Main Lines and Tap Lines having the corresponding effective service years, and to the further fact that the amount of pipe determined by this application should be in approximate agreement with the amount of pipe allocated to mortalities due primarily to physical causes.

[fol. 9340] In the case of the Mortality Curves II and III, the Primary Test is based upon a determination of the amount of pipe involved in the mortalities allocated to Major Removals and Major Replacements due primarily to changed operating conditions and other like causes, and a determination of the effective weighted service years of the pipe in Main Lines and Tap Lines affected by these removals and replacements during their service life.

Allocation of Historic Mortalities Steel Pipe—Main Lines and Tap Lines

In the 6,066,627 feet of three inch equivalent diameter pipe replaced, removed or abandoned in the designated Main Lines and Tap Lines of Lone Star Gas Company from

1910 to July 1, 1933, there has been included a substantial amount of pipe involved in major removal and major replacements caused primarily by changed operating conditions.

The major removals consisted of a series of removals that involved the designated Main Lines 2nd B and D, and the designated Tap Line D-2. A careful investigation has been made of each of these removals, and all available information relative to the ultimate disposition and use of the pipe removed has been used in connection with the allocation of mortalities.

As previously noted in the case of the removal of the sixteen inch pipe in Line 2nd B, and the twelve inch pipe in Line D, the pipe removed, less the amount of pipe junked at the removal date, was relaid in the Main Line System as a part of Lines G and H. In the case of the removal of the Tap Line D-2, the pipe removed, less the amount of pipe junked, was relaid as Tap Line F-2.

The major replacements due primarily to changed operating conditions, or to public requirements, consisted of a series of replacements of pipe of various sizes and at various dates. The line designation and the amount of pipe expressed in feet of three inch equivalent diameter pipe replaced and allocated to Major Replacements, due primarily to changed operating conditions, or to public requirements, are shown in the following summary:

Year	Line Designation	Feet of 3 inch Equivalent
1912.....	Line A	222,945
1917.....	Line A	129,710
1920.....	Line A	16,000
1922.....	Line B-9	66,665
1923.....	Line A	443,649
1926.....	Line F-2	35,225
1927.....	Line F-1	25,727
1927.....	Line F-2	22,510
1928.....	Line A	256,667
1929.....	Line GD	104,147
1930.....	Line 153	14,896
1930.....	Line 86	14,256
1931.....	Line 17	50,148
1931.....	Line 24	57,840
1931.....	Line C	112,991
1933.....	Line J-2	17,067

Little, if any, of this pipe replaced can be identified as having been subsequently relaid as a part of the Main Line System. As shown by the records of the company, a substantial part of the pipe removed was junked on removal and as indicated by the experience of the company, additional amounts were classified as junk, or as unfit for main line service subsequent to the transfer of the salvaged material to warehouse stock as second-hand pipe.

As in the case of the pipe involved in Major Removals, an exhaustive examination has been made of all available records for the purpose of determining the ultimate disposition and use of the pipe replaced in the operations designated as Major Replacements caused by changed operation conditions and by public requirements. The results of these investigations have been used in connection with the [fol. 9342] allocation of mortalities.

It is evident that when the removal of a line, or a portion of a line takes place, and a portion of the pipe is junked at the time of removal, the pipe thus junked should be added to the footage of pipe in the classification representing mortalities caused primarily by the physical condition of the pipe in service. This is also true with reference to the footage of pipe junked in connection with major replacements caused primarily by changed operating conditions, or to public requirements.

While as previously stated, it has been the experience of the company that when second-hand pipe is taken from lines and transferred to warehouse stock, that approximately ten per cent of such pipe is finally classified as unfit for service. No consideration has been given to this fact in fixing the amount of pipe having been removed by reason of physical condition. The line designation and the amount of pipe expressed in feet of three inch equivalent diameter pipe classified as junked in connection with Major Removals and Major Replacements caused primarily by changed operating conditions, or by public requirements, is set out with the following summary:

Year	Line Designation	Feet of 3 inch Equivalent
1912	Line A	16,017
1916	Line D-2	232
1917	Line H (Line D)	38,017
1917	Line C	4,528
1917	Line A	880

Defendant's Exhibit No. 42—Continued

Year	Line Designation	Feet of 3 inch Equivalent
1922	Line B-9	2,800
1923	Line A	18,280
1923	Line A	23,238
1926	Line F-2	2,844
1927	Line F-2	338
1928	Line A	71,266
1929	Line GD	5,693
1930	Line 86	1,327
1930	Line 151	6,347
1930	Line J-2	972
1931	Line 17	5,196
1931	Line 24	1,426
[fol. 9343]		
1931	Line 24	8,434
1931	Line C	18,443
1933	Line J-2	1,365

The results of these allocations of the total mortalities of steel pipe in the designated Main Lines and Tap Lines in the system of Lone Star Gas Company from 1910 to July 1, 1933, are set out in the tabulation—Allocation of Main Line and Tap Line Replacements, Removals and Abandonments—1910 to July 1, 1933.

With these allocations completed, the sum of the footage in Columns B and D, or 4,290,424 feet of three inch equivalent diameter pipe is the total amount of pipe removed or replaced in the designated Main Lines and Tap Lines of Lone Star Gas Company from 1910 to July 1, 1933, primarily by reason of changed operating conditions, or public requirements. The amount of footage in Column G, or 2,003,846 feet of three inch equivalent diameter pipe is the total amount of pipe removed or replaced in the designated Main Lines and Tap Lines of Lone Star Gas Company from 1910 to July 1, 1933, primarily by reason of the physical condition of the pipe.

The allocation of the mortalities by years as set out in the tabulation are also shown in graphic form—Main Line and Tap Line Replacements, Removals and Abandonments of Pipe by Years. In this graph are shown:

1. The annual replacements and abandonments of Main Line and Tap Line pipe caused primarily by the physical condition of the pipe.
2. The major removals and replacements due primarily to changed operating conditions, or to public requirements equally distributed in annual installments beginning one year subsequent to the individual removal or replacement and extending through the year 1933.

In the graph, these annual allocations have been added to [fol. 9344] the annual replacements and abandonments caused primarily by the physical condition of the pipe.

It will be noted from an inspection of the graph that the results as shown with reference to historic replacements and abandonments due primarily to the physical condition of the pipe, are typical of the normal behavior of steel pipe with the exception of the relatively high mortalities during some of the earlier service years where a substantial amount of pipe was junked incident to Major Removals and Major Replacements caused primarily by changed operating conditions. This condition is noticeable in the years 1912, 1915, 1916, 1917, 1923 and 1925. This pipe would have been removed at some later date had the lines remained in place; but the replacements would no doubt have been more normally distributed over the subsequent years.

Attention should also be directed to the low rate of replacements during the war period and to the obviously abnormally low rate of replacement during the year 1932. This latter condition was the result of the effort of Lone Star Gas Company to conserve its cash resources during this period, and the replacements made during the year 1932 do not reflect a normal situation. Consideration has not been given to this particular fact in the calculations made with reference to a test of the adopted mortality curve.

[fols. 9398-9401] The calculated mortalities by years are shown in the tabulation—Calculated Mortalities by Years, from Mortality Curve III—Table XIX. The results of these calculations are shown in the following summary:

Year	Calculated Mortalities— Table XIX
1910	422
1911	2,006
1912	2,059
1913	2,482
1914	6,072
1915	6,283
1916	6,917
1917	8,026
1918	8,184
1919	9,768
1920	21,278
1921	37,699
1922	44,880
1923	47,889
1924	53,275
1925	75,134
1926	84,586
1927	102,274
1928	112,464
1929	144,619
1930	205,075
1931	253,598
1932	270,230
1933	294,043
Total	1,799,263*
Historic Mortalities	1,715,688*

Conclusion

The following summary sets out in condensed form a comparison of the various checks of the adopted mortality [fol. 9402] curves, and the total historic mortalities of steel

*Feet of three Inch Equivalent Diameter Pipe.

pipe in the pipe line system of Lone Star Gas Company from 1909 to mid-year, 1933, all in feet of three inch equivalent diameter pipe.

Calculated Mortalities:

1. Main Lines and Tap Lines:	
a. Mortality Curve I	2,044,522
b. Mortality Curve II	4,125,739
2. Field Lines and Well Lines:	
a. Mortality Curve I	120,332
b. Mortality Curve III	1,797,998
Total Calculated Mortalities	8,088,591

Historic Mortalities:

1. Main Lines and Tap Lines:	
a. Mortalities due to failure of pipe	2,003,846
b. Mortalities due to changed operating conditions	4,290,424
2. Field and Well Lines:	
a. Mortalities due to failure of pipe	120,332*
b. Mortalities due to changed operation conditions	1,715,688
Total Historic Mortalities	8,130,290

* Calculated.

If consideration is given to the fact that included in the mortalities of Main Lines and Tap Lines, due to changed operating conditions, there is a certain amount of pipe that was junked incident to the replacement or removal, the historic mortalities become 7,902,647 feet of equivalent diameter pipe, or 97.7 per cent of the mortalities derived from an application of the renewal rates developed from the adopted mortality curves. In this connection, no consideration has been given to conditions that existed in 1932 with reference to the curtailment of practically all replacements and removals. For convenience, the calculated as well as the historic mortalities have been set out by years in graphic form in the graph—Calculated and Historic Mortalities—By Years.

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LONE STAR GAS CO DEPRECIATION ANALYSIS

HISTORICAL & CALCULATED ANNUAL MORTALITIES

STEEL PIPE

MAIN, TAP, FIELD & WELL LINES

AB-HISTORICAL FAILURES DUE TO PHYSICAL CONDITIONS
MAIN & TAP LINES

AC-HISTORICAL MAJOR REPLACEMENTS, REMOVALS, & ABANDON-
MENTS MAIN & TAP LINES CAUSED BY CHANGED OPERATING
CONDITIONS, OR TO PUBLIC REQUIREMENTS, ADDED TO CURVE AB

AD-HISTORICAL FAILURES DUE TO PHYSICAL CONDITIONS AND
REMOVAL, REPLACEMENTS, ABANDONMENTS OF FIELD & WELL
LINES DUE TO CHANGED OPERATING CONDITIONS ADDED TO
CURVE AC

AB-CALCULATED FAILURES DUE TO PHYSICAL CONDITIONS MAIN
& TAP LINES

AC-CALCULATED MAJOR REPLACEMENTS, REMOVALS, & ABANDON-
MENTS, MAIN & TAP LINES CAUSED BY CHANGED OPERATING
CONDITIONS, OR TO PUBLIC REQUIREMENTS, ADDED TO CURVE AB

AD-CALCULATED FAILURES DUE TO PHYSICAL CONDITIONS AND
REMOVALS, REPLACEMENTS, & ABANDONMENTS DUE TO CHANGED
OPERATING CONDITIONS OF FIELD & WELL LINES, ADDED TO
CURVE AC

100,000 FEET OF 3" EQUIVALENT DIAMETER PIPE

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12

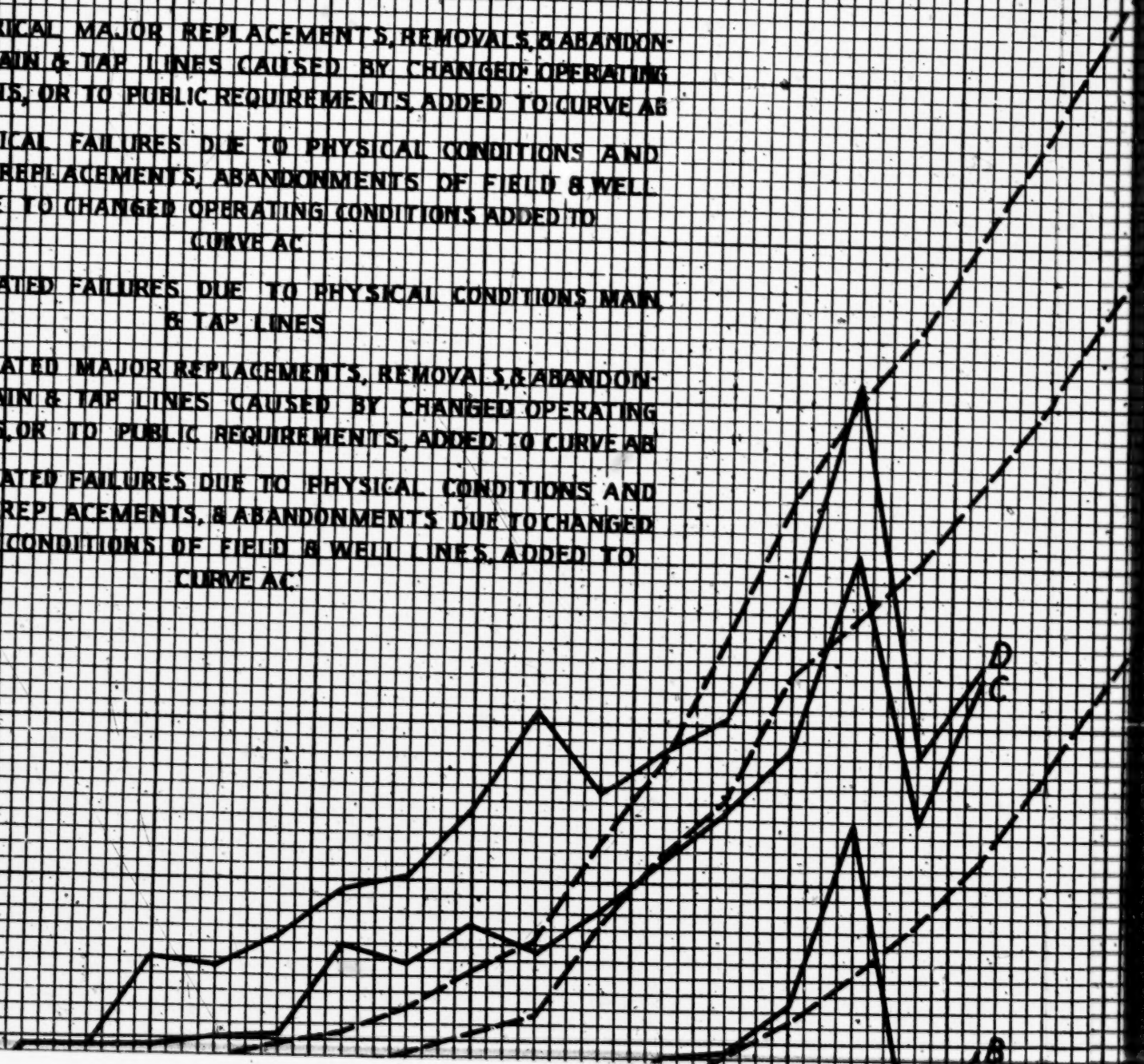
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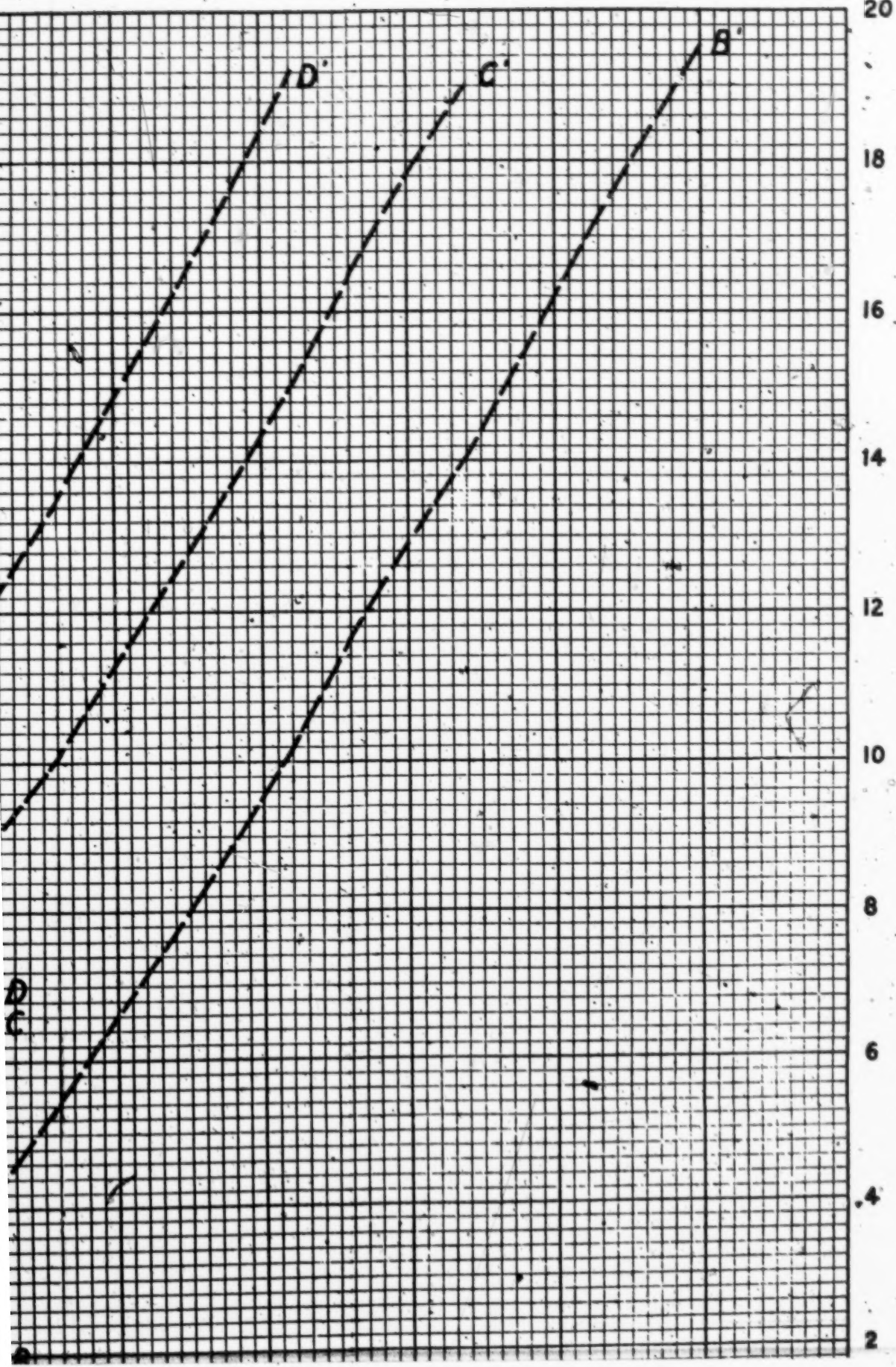
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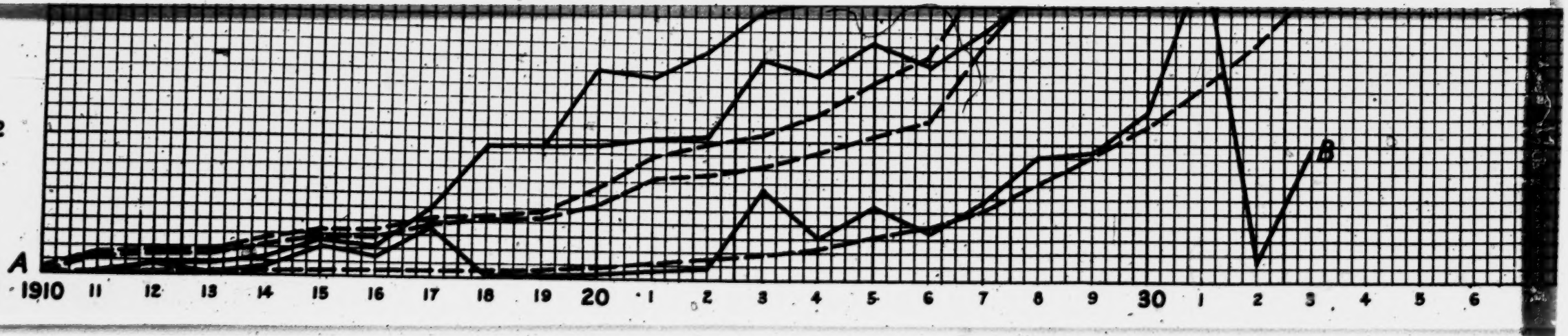
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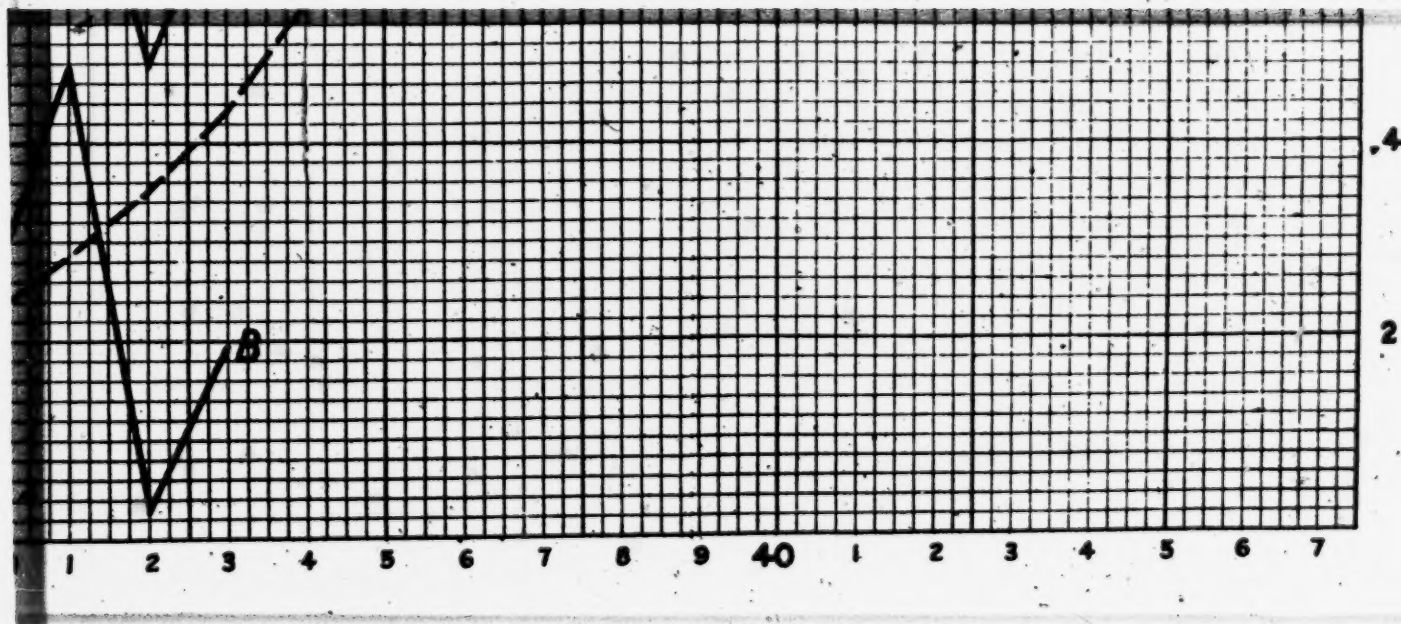
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**LONE STAR GAS CO.
DEPRECIATION ANALYSIS
CALCULATED MORTALITY BY YEARS
STEEL PIPE
MAIN, TAP, FIELD & WELL LINES**

**AB-FAILURES DUE TO PHYSICAL CONDITIONS, MAIN
& TAP LINES FROM MORTALITY CURVE I**

**AC-FAILURES DUE TO PHYSICAL CONDITIONS, MAIN
& TAP LINES FROM MORTALITY CURVE I, PLUS
REMOVALS, REPLACEMENTS, & ABANDONMENTS
DUE TO CHANGED OPERATING CONDITIONS OR TO
PUBLIC REQUIREMENTS.**

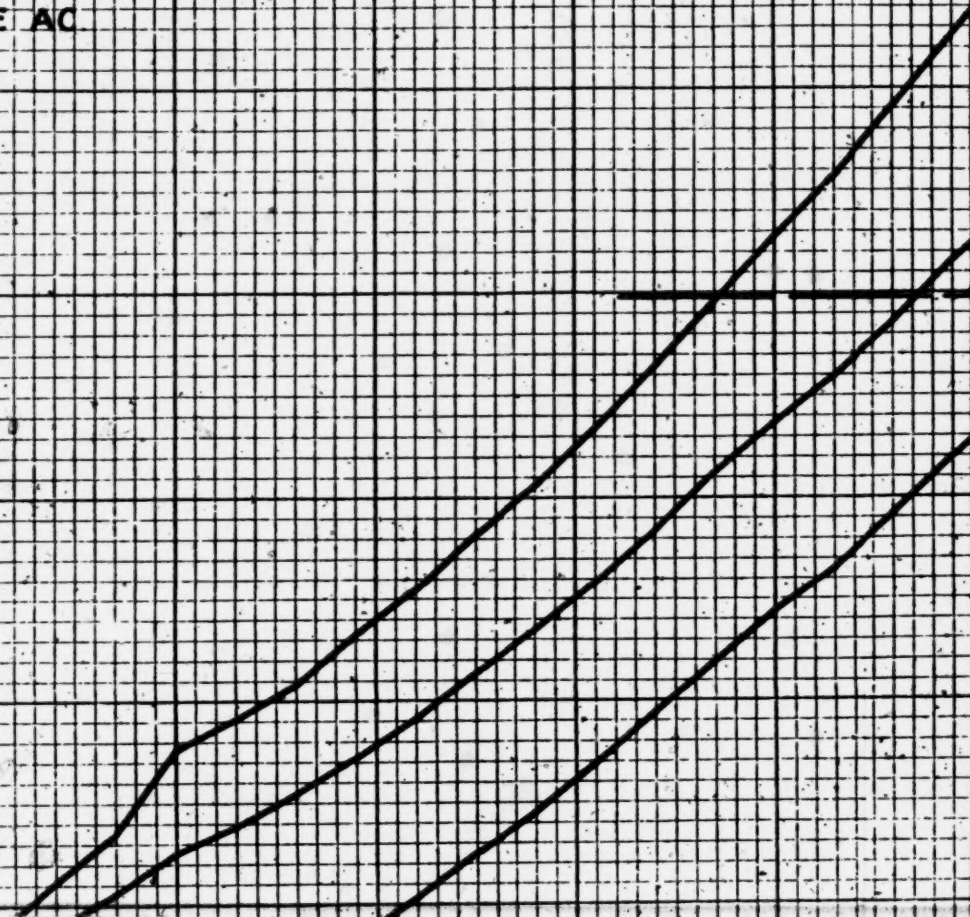
**AD-FAILURES DUE TO PHYSICAL CONDITIONS, FIELD
& WELL LINES FROM MORTALITY CURVE II
PLUS REMOVALS, REPLACEMENTS, & ABANDON-
MENTS DUE TO CHANGED OPERATING CONDITIONS
ADDED TO CURVE AC**

900
800
700
600
500
400
300
200

MILES OF PIPE 3" EQUIVALENT DIAMETER

LIMIT OF AD

LIMIT OF AC



4752

4224

3696

3168

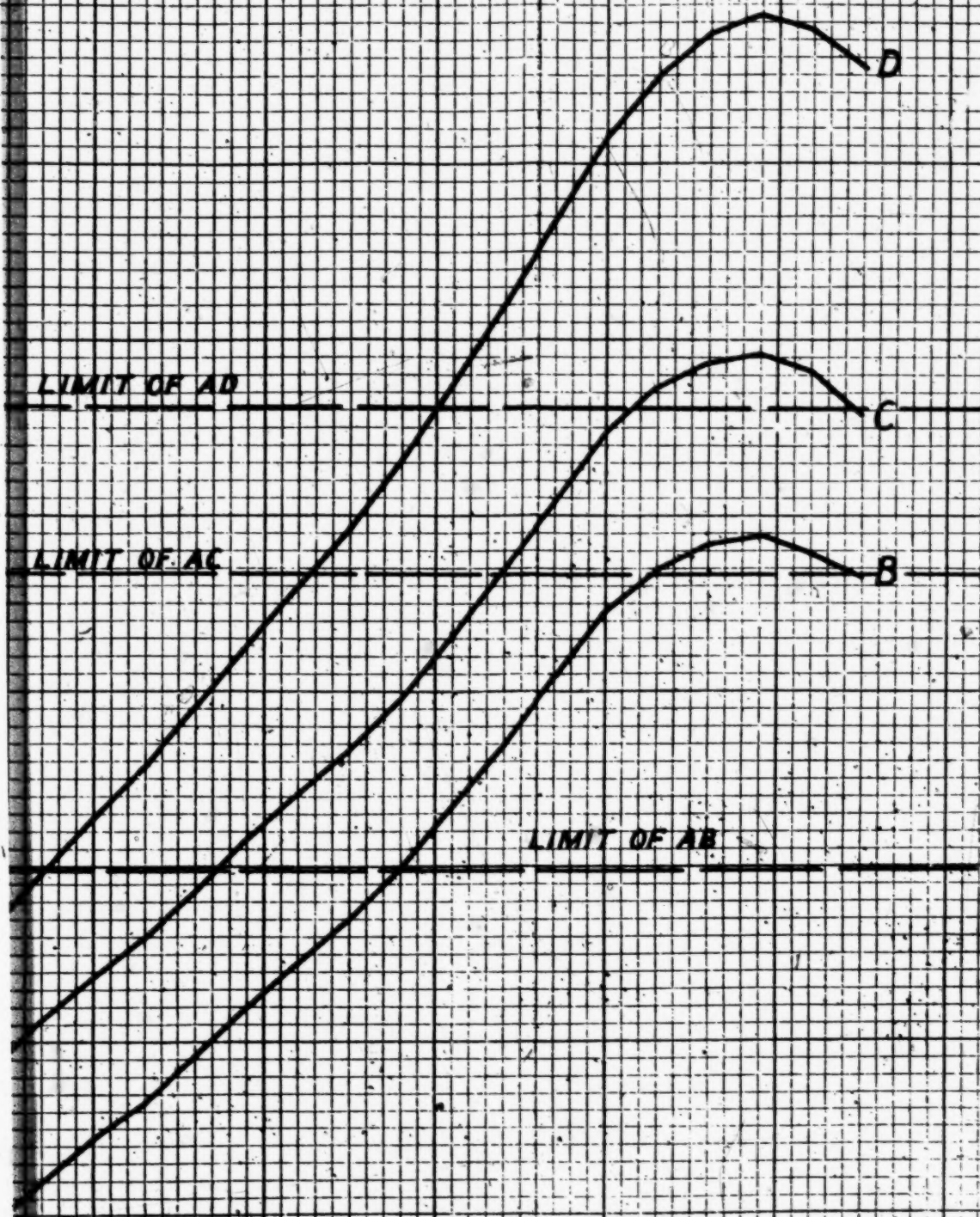
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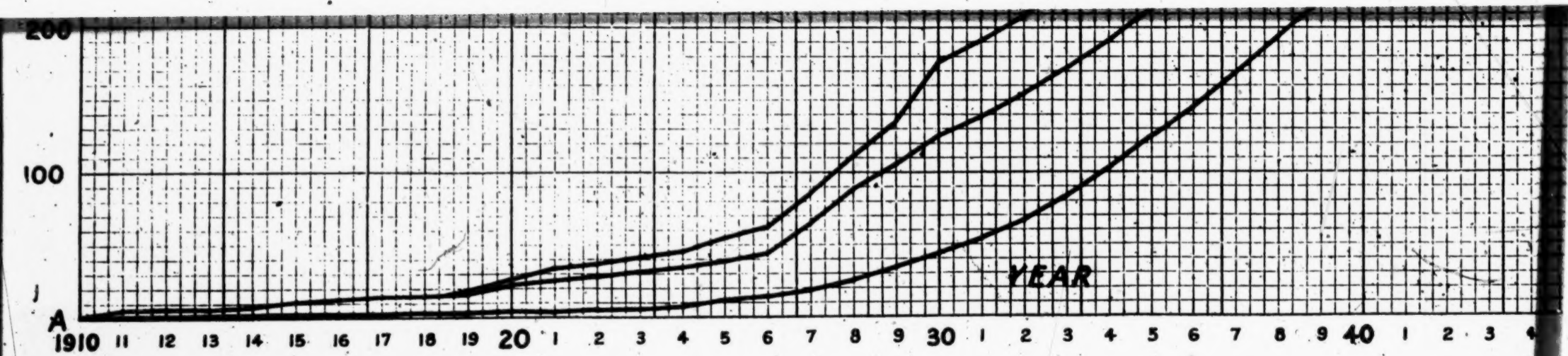
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1000 FEET OF PIPE 3" EQUIVALENT DIAMETER





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[fols. 9405-9407] Part I of this report has been confined to a general discussion of the scope of the investigation, the basic mortality data with reference to steel pipe in the system of Lone Star Gas Company, and to a development of three basic mortality curves for steel pipe in service in the system of Lone Star Gas Company.

Mortality Curve I was the mortality curve developed for steel pipe in Main Lines and Tap Lines and indicated the cumulative percentage of failures for various service years brought about primarily by the physical condition of the pipe. This curve was designed to apply to all steel pipe in the system insofar as failures due to physical condition were concerned.

Mortality Curve II was the mortality curve developed for steel pipe in Main Lines and Tap Lines and indicated the cumulative percentage of replacements, removals and abandonments for various service years brought about primarily by changed operating conditions and other like causes. This curve was designed to apply specifically to steel pipe in Main Lines and Tap Lines.

Mortality Curve III was the mortality curve developed for steel pipe in Field Lines and Well Lines and indicated the cumulative percentage of replacements, removals and abandonments for various service years brought about by changed operating conditions and other like causes. This curve was designed to apply specifically to steel pipe in Field Lines and Well Lines.

From each of these mortality curves, there were developed distribution curves of replacements of original units and replacements of replacements for various service years.

These mortality curves and the annual replacement, or renewal rates derived from them, expressed as a percentage [fol. 9408] of the units in service were tested by a comparison of the calculated mortalities based upon the respective slopes of the curves for various service years with the actual mortalities properly allocated that had taken place in the Main Lines, Tap Lines, Field Lines and Well Lines of Lone Star Gas Company from the beginning of operations through July 1, 1933.

Part II of this report is confined to a development of the future annual reserve accruals, expressed as a percentage of the reproduction cost of the units in service that will be required to provide for the cost of replacements of steel pipe due primarily to physical condition of the pipe, the

cost of replacements, removals and abandonments due primarily to changed operating conditions, or to public requirements, to provide for the decline in per cent of new condition and to provide for the cost of major rehabilitations in the Main Lines, Tap Lines, Field Lines and Well Lines in service in the system of Lone Star Gas Company as of January 1, 1933.

[fol. 9409] Annual Rate of Reserve Accrual

Main Lines and Tap Lines

[fol. 9410] The total annual reserve accrual required for Main Lines and Tap Lines, exclusive of amortization accruals applicable to the property as a whole, is based upon the cumulative effect of four major factors.

1. The annual rate of reserve accrual required for steel pipe for failures caused primarily by the physical condition of the pipe.
2. The annual rate of reserve accrual required for Main Lines and Tap Lines required to cover the cost of replacements, removals and abandonments caused primarily by changed operating conditions, or by public requirements.
3. The annual rate of reserve accrual required to cover the cost of periodic major rehabilitations of Main Line and Tap Line pipe.
4. The annual rate of reserve accrual required to create a credit balance sufficient to offset the difference in present value as determined by visual inspection and future value determined by the same method at such time as the per cent of new condition of the property will have become static.

Item 1:

The limit of the annual rate (when expressed as a percentage of the units in service) required for steel pipe for failures caused primarily by the physical condition of the pipe, was found to be four per cent per annum. This percentage is the limit of the oscillating type of distribution curve of annual replacements of original units and replacements of replacements derived from Mortality Curve I.

It is obvious from an inspection of the tabulation—Annual Renewal Rates for Steel Pipe from Mortality Curve I,

that the percentages for annual renewal rates of original units and replacements of replacements will not be four per cent during the period under review, but will be a series of [fol. 9411] variable percentages increasing from zero per cent at one service year to a maximum of 7.24 per cent at the twenty-seventh service year; then decreasing to another minimum of 2.55 per cent at the thirty-eighth service year; then again increasing to another maximum of 5.08 per cent at the fifty-first service year. This oscillation will continue with decreasing amplitude as the service years increase until at some future date a uniform rate of four per cent per annum will be reached.

In order to estimate the effect of the application of these variable percentages to the pipe in service as Main Lines and Tap Lines as of January 1, 1933, a calculation has been made wherein the applicable annual percentages have been applied to the miles of three inch equivalent diameter pipe in service in Main Lines and Tap Lines which had reached the corresponding service years. This calculation was extended from the year 1933 through the year 1955, and the results are shown in the calculation—Calculated Future Annual Replacements—Main Lines and Tap Lines, from Mortality Curve I—Table I-A.

For convenience, and for reference, the results of this calculation are set out in the following summary:

Year	Calculated Miles 3 Inch Equivalent	Per cent of Miles in Service
1934.....	102.29	.99
1935.....	124.94	1.21
1936.....	146.48	1.42
1937.....	168.42	1.64
1938.....	192.82	1.87
1939.....	220.38	2.14
1940.....	244.90	2.38
1941.....	266.64	2.59
1942.....	292.08	2.84
1943.....	420.56	3.11
1944.....	345.82	3.36
1945.....	370.23	3.60
[fol. 9412]		
1946.....	398.72	3.87
1947.....	432.98	4.20

Year	Calculated Miles 3 Inch Equivalent	Per cent of Miles in Service
1948.....	469.96	4.56
1949.....	509.30	4.95
1950.....	547.48	5.32
1951.....	571.23	5.55
1952.....	584.37	5.68
1953.....	588.61	5.72
1954.....	578.77	5.62
1955.....	552.80	5.32

The average annual rate for the twenty-two year period for which the calculations have been made, expressed as a percentage of miles of three inch equivalent diameter pipe in service as Main Line and Tap Lines in the system of Lone Star Gas Company as of January 1, 1933, is 3.54 per cent. The average annual rate, if the calculations are projected sufficiently beyond 1955, will approach four per cent as a limit.

Attention should be called to the fact that the miles of three inch equivalent diameter pipe to which the various annual rates have been applied in Table I-A have been assigned the service years indicated by the date of original installation with the exception that the indicated age of Lines B, C, G and H has been adjusted to compensate for the effect of the renewal of protective coating.

Item 2:

The limit of the annual rate (when expressed as a percentage of the units in service) required for steel pipe in Main Lines and Tap Lines for the cost of replacements, removals and abandonments caused primarily by changed operating conditions, or by public requirements, was found to be 1.6 per cent per annum. This percentage is the limit of the oscillating type of distribution curve of annual replacements, removals and abandonments, and replacements of replacements derived from Mortality Curve II. An inspection of the tabulation—Annual Renewal Rates for Steel Pipe from Mortality Curve II discloses the fact that the annual renewal rates of original units and replacements will not be 1.6 per cent during the period under review, but will be a per cent that gradually increases from .80 per cent to 1.136 per cent for the forty-fifth service year. The distribution curve from which these percentages

were derived is of the oscillating type, but in this case, the extent of the first life cycle (125 service years) eliminates the effect of any oscillations during the period under review.

In order to estimate the effect of the application of these variable percentages to the pipe in service as Main Lines and Tap Lines as of January 1, 1933, a calculation has been made wherein the applicable annual percentages have been applied to the miles of three inch equivalent diameter pipe in service as Main Lines and Tap Lines which had reached corresponding service years. As in the case of Item I, this calculation was extended from the year 1933 through the year 1955, and the results are shown in the calculation—Calculated Future Annual Replacements, Removals and Abandonments—Main Lines and Tap Lines, from Mortality Curve II—Table II-A.

For convenience, and for reference, the results of this calculation are set out in the following summary:

Year	Calculated Miles 3 Inch Equivalent	Per cent of Miles in Service
1934	88.78	.86
1935	89.50	.87
1936	90.21	.88
1937	90.93	.88
1938	91.66	.89
1939	92.40	.90
1940	93.11	.90
1941	93.88	.91
[fol. 9414]		
1942	94.62	.92
1943	95.39	.93
1944	96.13	.93
1945	96.91	.94
1946	97.68	.95
1947	98.45	.96
1948	99.24	.96
1949	100.05	.97
1950	100.82	.98
1951	101.48	.99
1952	102.44	.99
1953	103.31	1.00
1954	104.11	1.01
1955	104.93	1.01

The average annual rate for the twenty-two year period for which calculations have been made, expressed as a percentage of miles of three inch equivalent diameter pipe in service as Main Lines and Tap Lines in the system of Lone Star Gas Company is .94 per cent. The average annual rate, if the calculations are sufficiently projected beyond the year 1955, will approach 1.6 per cent as a limit.

Attention should be called to the fact that the miles of three inch equivalent diameter pipe to which the various annual rates have been applied in Table II-A are not adjusted with reference to service years by reason of the renewal of the protective coating on Lines B, C, G and H for the reason that the renewal of the protective coating will not affect the probability of replacement, removal, or abandonments caused by changed operating conditions, or by public requirements.

Attention should also be called to the future relation between the calculated annual percentages for Item 1 and Item 2. It was stated in Part I of this report that as the age of the pipe increased, the annual renewal rate required for the replacement of pipe caused primarily by the physical condition of the pipe would become the predominant factor in the total annual rate. This fact is clearly demonstrated by the results of the calculations in Table I-A, and Table II-A.

Item 3:

From 1910 to 1933, Lone Star Gas Company expended approximately \$570,000 for major rehabilitation of Main Lines and Tap Lines. Costs of this character will normally tend to increase with the passage of time and the consequent increase of the age of the lines, but the history of the company affords no basis for any rational projection of such increases into the future. The actual expenditures in the past, expressed in dollars per mile of three inch equivalent diameter pipe per service year was \$5.99 (\$570,000 divided by 95,071 miles service years of three inch equivalent diameter pipe). This expenditure expressed as a percentage of the reproduction cost of Main Lines and Tap Lines, reduced to a cost per mile of three inch equivalent diameter pipe (\$2,960) is approximately .202 per cent per annum. This percentage has been adopted as the an-

nual rate of reserve accrual required to provide for the future cost of major rehabilitations.

Item 4:

All depreciable property of Lone Star Gas Company in service as of January 1, 1933, will be subject to a gradual decline in per cent of new condition below the average per cent of new condition found by the engineers as the per cent of new condition of the property as of January 1, 1933.

With specific reference to the property in service as of January 1, 1933, and with no consideration given to the [fol. 9416] effect of future capital additions upon the average per cent of new condition of the property as a whole at any future date, the per cent of new condition will decline to an average per cent of new of approximately eighty per cent.

When proper consideration is given to the weighted service years of the Main Lines and Tap Lines in service as of January 1, 1933, the annual rate of this decline as found by the engineers of the company, when expressed as a per cent, has been slightly in excess of one per cent per weighted service year. This average annual rate of decline in per cent of new condition will not be a continuous one as is indicated by the fact that a static per cent of new condition will ultimately be reached and thereafter maintained. For this reason, an annual rate of one per cent for fifteen years has been included in the calculation of reserve accruals for Main Lines and Tap Lines.

Determination of the Annual Rate

The annual rate of reserve for Main Lines and Tap Lines should provide the basis for the estimate of the average annual future costs of replacements, removals and abandonments from all causes, the cost of major rehabilitations and the loss in value due to the future decline in per cent of new condition.

The word, "Cost" is of particular significance in connection with this study. The calculations and the estimates that have previously been made have had to do solely with the "Rate" of occurrences, and in all of the preceding calculations, this rate has been expressed as a percentage per

annum of the units in service. Inasmuch as it is the function of the annual reserve accruals to provide for certain "Costs", it becomes necessary to translate the annual rates expressed as percentages of units by property into an annual sum of money representing the cost of replacements, removals and abandonments and other factors that should be provided for through the medium of reserve accruals.

The commonly accepted method by which this translation is made is by the application of the average rates of occurrence expressed as a percentage of the units in service to the reproduction cost of the property units under consideration. This simple procedure can provide a rational answer to the problem only if the average rate of replacements, removals and abandonments, expressed as a percentage of units when applied to the reproduction cost of the units, results in a sum approximately equal to the unit cost of the replacements, removals and abandonments. The following example is illustrative of this fact.

Let it be assumed that the Main Line pipe in a given system is uniform in diameter and that the reproduction cost is three dollars per lineal foot installed. Let it be further assumed that this pipe has reached a service life that requires that uniform annual replacement of four per cent of the footage of pipe in service in order to maintain the number of units in service. In this case, the annual accrual created by the application of four per cent (the rate of failure) to three dollars (unit reproduction cost) and the number of feet in service will provide the proper replacement accrual in terms of dollars only when the net unit cost of making the necessary replacements is three dollars per lineal foot.

On the other hand, in the case of replacements and removals caused primarily by changed operating conditions, or by public requirements, the element of the net salvage value of the material recovered and removed is a factor that must be weighed and taken into consideration in connection with the final expression of the annual reserve accrual.

Inasmuch as the application of a percentage to reproduction cost is the only practical method by which reserve accruals, expressed in terms of dollars per annum, may be estimated, the following factors in addition to the annual

rates expressed as a percentage of the units in service, must be taken into consideration.

1. The proportionate part of the reproduction cost of the property units (Main Lines, Tap Lines and their appurtenant equipment) as a whole not subject to replacements, removals or abandonments, nor subject to a decline in per cent of new condition.

2. The net salvage value of the materials removed and recovered:

3. The relative cost of replacements, unit basis, and the reproduction cost of the units replaced, unit basis.

If a substantial proportion of the reproduction cost of a property unit is not subject to replacement, removal, or abandonment, nor to a decline in per cent of new condition, and the mortality rate for this unit has been determined from a study of the portion of the unit subject to depreciation and replacement, then the application of the rate to the reproduction cost of the unit as a whole would result in the accrual of an annual sum in dollars that would be in excess of the requirements for which the specific reserve has been created.

If it is assumed that the Main Lines and Tap Lines of Lone Star Gas Company in service as of January 1, 1933, will remain in their original locations throughout their service lives, the items included in a reproduction cost estimate of direct structural costs that would be unaffected by the factor of replacements, removals and abandonments that would be unaffected by a decline in per cent of new condition and that would not be reincurred in piece-meal replacements are as follows:

1. Value of lands owned in fee.
2. Rights-of-way costs exclusive of construction damages.
3. Reproduction cost of clearing rights-of-way.

If total costs instead of direct structural costs are considered, a large proportion of the undistributed general charges would not be reincurred in piece-meal replacements. This is particularly true of the item—Interest During Construction.

In an appraisal of the Main Lines and Tap Lines of Lone Star Gas Company made as of January 1, 1932, in-

volving direct structural costs of approximately \$33,000,000, the following items should be classified as non-depreciable in the sense that in the replacement of units of property, these original costs would not be proportionately incurred.

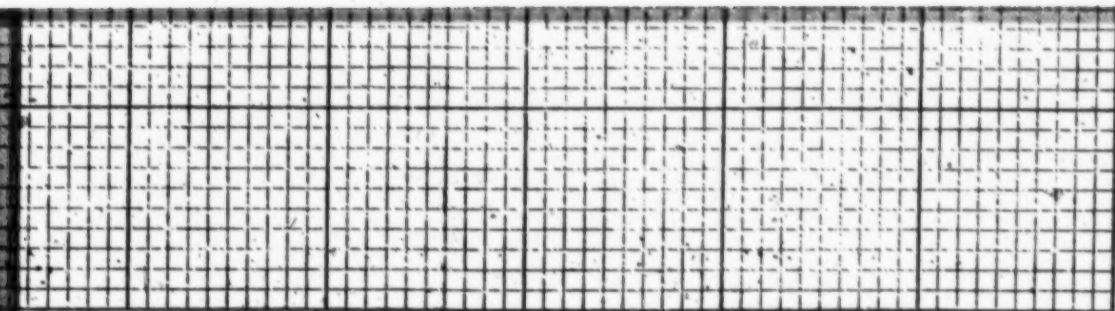
Measuring Station Land	\$50,000
Rights-of-way	1,180,000
Other transmission land	14,000

Total	\$1,244,000
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The indicated percentage of the direct structural costs of Main Lines and Tap Lines not subject to the application of the annual reserve rates is 3.78. For the purpose of this determination, 96 per cent of the Main Lines and Tap Lines will be used as the proportionate part of the reproduction cost of these property groups subject to the application of that portion of the reserve accrual designed to provide for the replacement of pipe due primarily to the physical condition of the pipe, and for the decline in per [fol. 9420] cent of new condition. That portion of the total annual reserve accrual designed to provide for replacements, removals and abandonments due primarily to changed operating conditions, or to public requirements, will be applied to 100 per cent of the reproduction cost of the Main Lines and Tap Lines for the reason that new rights-of-way will be required for the changed location of the lines. That portion of the total annual reserve accrual designed to provide for the cost of major rehabilitations will be applied to 100 per cent of the reproduction cost of the Main Lines and Tap Lines for the reason that the annual percentage use for this factor has been based upon the relation of the cost of major rehabilitations to the entire reproduction cost of Main Lines and Tap Lines including rights-of-way and land.

It has been impossible from an analysis of records to determine the net value of salvable material involved in the replacement, removal, or abandonment of the Main Lines and Tap Lines of Lone Star Gas Company.

It is certain that the proportionate part of the total annual reserve accrual, designed to provide for the cost of future replacements due primarily to the condition of the pipe will be largely unaffected by the factor of net salvage value. On the other hand, it is equally certain that pipe



528

2 3 4 5 6 7 8 9 50 1 2 3 4 5 6 7 8 9 60

replaced, or removed by reason of changed operating conditions will have a certain net salvable value that will tend to reduce the indicated reserve accrual determined by the number of feet of replaced, or removed, expressed as a percentage of the feet in service.

In order to make a rational estimate of the effect of net salvage upon the indicated reserve accruals, a study has [fol. 9421] been made of the actual cost of construction items of forty-five lines involving an expenditure of \$4,548,487, and for this study, a determination has been made of the net salvage that might be recovered upon the removal of a line in case it is assumed that the pipe and fittings recovered are in 100 per cent of new condition after reconditioning.

The result of this analysis is shown in the tabulation—Determination of Salvage Value—Main Lines, Tap Lines and Field Lines—Table III-A.

In this tabulation, Column A sets out in detail and by items the installation cost of these lines. Column B sets out the percentage of each item of construction cost that would be lost in connection with a replacement, removal or abandonment of the lines as a whole. Column C sets out in detail and by items the dollar loss indicated by the application of the percentages in Column B to the installation cost of the corresponding items in Column A. Column D sets out the percentage of the cost of the original construction items that would be involved in recovering the pipe and fittings on removal and the cost of refilling the ditches and transferring the salvaged material to warehouse stock.

As shown by the tabulation, the estimated net loss is approximately 70 per cent of the original installed cost based upon the assumption that the salvaged material is in 100 per cent of new condition at the date of removal.

It will be noted in Column B that 25 per cent of the original cost of the pipe is the estimated per cent of the cost of the pipe lost on removal. This percentage of loss is intended to cover

1. The loss in footage due to cutting.
 2. The cost of preparing ends for relaying.
- [fol. 9422] 3. The cost of cleaning and reconditioning after removal.

As a result of the foregoing analysis, a factor of .70 has been adopted as applicable to the indicated annual rate estimated to provide for replacements, removals and abandonments due primarily to changed operating conditions, or to public requirements.

In order to make a rational estimate of the effect of the excess cost of piece-meal replacements in lines over the estimated unit cost of installation, based upon a wholesale reproduction cost estimate, a study has been made of the actual costs involved in making piece-meal replacements.

In all, the costs of two hundred and one individual replacement jobs were analyzed. These jobs covered the replacements of four, six, eight, ten, twelve, sixteen and eighteen inch threaded and coupled, Dresser coupled and welded pipe. The individual replacements ranged from twenty feet to thirty-five thousand feet in length. A total of 665,000 feet of three-inch equivalent diameter pipe was involved in the replacements investigated, and the labor costs exceeded \$232,000.

The comparative analysis was limited to the direct structural costs used in the reproduction cost estimate of the pipe lines of Lone Star Gas Company as of January 1, 1932, prepared by E. A. Steinberger and Ed. C. Connor, and it was assumed that there would be no material difference in the cost of materials used in replacements and the unit cost of the same materials used in the reproduction cost estimate. In order that the comparison between the direct structural costs (less material) for similar units used in the reproduction cost estimate might be exact, the unit cost of the identical lines in which the replacements [fol. 9423] were made were taken from the reproduction cost estimate and these unit costs were compared with the cost of piece-meal replacements in the same lines. The ratio of the unit costs developed by the reproduction cost estimate and the corresponding unit costs developed by the analysis of the cost of the piece-meal replacements was 1.00 to 1.61.

This analysis also developed the fact that there is a sharp increase in the unit cost of replacements as the length of the individual replacements is reduced. The effect of this increase in the unit cost of replacements (labor only) with the reduction in the length of the replacements is shown in the graph—Graphic Comparison of Unit Costs of Replace-

ments—Steel Pipe—Labor Only, With Unit Costs—Reproduction Cost Estimate.

Due to the clearly defined characteristics indicated by this graph, it was necessary to select for this study a group of replacement jobs that would be representative with reference to length of the average length that will be met in future replacements.

This analysis also developed the fact that included in the cost of a number of the replacement jobs analyzed, there were certain costs, indeterminate in amount, that were not strictly attributable to the cost of making the replacement itself. In order to safely compensate for the inclusion of these extraneous charges, the indicated ratio of the unit cost developed by the reproduction cost estimate and the unit cost developed by the analysis of the cost of piece-meal replacements (1.00 to 1.61) has been reduced to 1.00 to 1.50.

There remains to be considered the effect of the net salvage value of materials recovered in replacements made [fol. 9424] primarily by reason of the physical condition of the pipe upon the indicated annual rates shown in Table I-A (Annual Rates from Mortality Curve I—1934-1955).

It is certain that pipe removed from Main Lines and Tap Lines by reason of its physical condition will have a per cent of new condition substantially lower than 100 per cent. It is also true that this pipe will have a minimum value measured by its value as junk and a maximum value measured by its adaptability for use in other parts of the system where service conditions are not so exacting as those imposed by Main Line Service.

In the analysis of the cost of piece-meal replacements, all items of expense were included in the unit costs developed. These unit costs, therefore, included the estimated cost of recovery shown in Column E—Table III-A, and such salvage as might be attributable to the material recovered would be a net credit to the cost of piece-meal replacements.

From Column A—Table III-A, the cost of pipe and fittings (new) was 64 per cent of the total installed cost of the forty-five lines analyzed. The cost of pipe and fittings (new) then becomes 42.7 per cent of the cost of the piece-meal replacements (64 per cent divided by 1.50). If it is assumed that the pipe and fittings removed, primarily on account of the physical condition of the pipe, have an average salvable value of 50 per cent of new pipe and fittings, this salvable value becomes 21.35 per cent of the total unit

cost of piece-meal replacements, and when credited to this unit cost, reduces the ratio of 1.50 to 1.00 (the ratio to the unit cost of piece-meal replacements to the unit cost of wholesale reproduction) to 1.18 to 1.00. The factor 1.18 [fol. 9425] will, therefore, be applied to all annual renewal rates developed from Mortality Curve I and shown in Table I-A, together with the factor .96 previously developed to provide for the proportionate part of the reproduction cost of Main Lines and Tap Lines not subject to replacement due to the physical condition of the pipe.

This concludes the discussion of the various factors required to reduce the indicated future rates of replacements, removals and abandonments derived from the mortality curves and distribution curves of annual renewals or replacements to annual rates, which when applied to the reproduction cost of Main Lines and Tap Lines, will properly reflect the effect of the proportionate part of these property groups not subject to replacement, the effect of the salvable value of materials recovered, and the effect of the excess unit costs of piece-meal replacements over the corresponding unit costs in wholesale reproduction.

Table IV-A sets out in detail the results of the application of the factors to the basic annual rates. For convenience and reference, the results of this application are shown in the following summary:

Year	Main Lines and Tap Lines Adjusted Total Annual Rates
1934	2.882 Per cent
1935	3.140
1936	3.389
1937	3.638
1938	3.899
1939	4.215
1940	4.487
1941	4.734
1942	5.018
1943	5.334
1944	5.617
1945	5.899
1946	6.215
1947	6.589

[fol. 9426]

Main Lines and Tap
Lines Adjusted Total
Annual Rates

Year	Annual Rates
1948	6.996
1949	6.488
1950	6.918
1951	7.178
1952	7.325
1953	7.381
1954	7.277
1955	6.938

These future annual rates are expressed as percentages per annum, which when applied to the reproduction cost new of Main Lines and Tap Lines in service in the system of Lone Star Gas Company as of January 1, 1933, are designed to provide for

1. The future net Cost of replacements and abandonments due primarily to the physical condition of the pipe.
2. The future net Cost of replacements, removals and abandonments due primarily to changed operating conditions, or to public requirements.
3. The value lost through future decline in per cent of new condition.
4. The future cost of major rehabilitations.

It will be noted that the calculated annual rates are a series of variables. It was stated in the preceding section of this report that the primary function of the reserve accrual finally determined would be to provide a uniform rate of accrual that would fulfil the indicated requirements.

It is obvious that a uniform annual accrual designed to provide the necessary annual funds indicated by the application of the adjusted total annual rates to the reproduction cost of Main Lines and Tap Lines, will create a credit balance during the earlier years of the accrual. The use of this credit balance, and the interest earned upon it, would tend to reduce the indicated amount of the uniform annual accrual.

[fol. 9427] Consideration has been given to this fact in fixing the uniform annual rate. The average annual rate

from 1934 to 1955 inclusive is 5.53 per cent. The average annual rate adopted is 5.40 per cent.

In Table V-A, there is set out the effect of applying five per cent interest compounded annually to the credit balance derived from deducting the calculated annual rates from the adopted uniform annual accrual, 5.40 per cent. It will be noted from an inspection of the tabulation that the credit balance increases to a maximum of 19.32 per cent in 1946, and thereafter declines to 12.49 per cent in 1955 due to the excess of the estimated charges over the uniform annual accrual. The credit balance would have been entirely dissipated had the calculations been carried forward through the year 1965. The credit balance at no time would be free capital.

Defendant's Exhibit No. 42—Continued

[fol. 9428]

Calculated Future Annual Replacements

Table I-A

Main Lines and Tap Lines—From Mortality Curve I

Year	1934			1935			1936			1937			1938			1939			1940			1941		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1910.....	9.45	7.13	.67	7.16	.68	.68	7.20	.68	.68	7.24	.68	.68	6.78	.64	.64	5.84	.55	.55	4.96	.47	.47	4.23	.40	.40
1911.....	50.16	6.61	3.32	7.13	3.58	3.59	7.16	3.59	3.61	7.20	3.61	3.63	7.24	3.63	3.63	6.78	3.40	3.40	5.84	2.93	2.93	4.96	2.49	2.49
1912.....	661.85	5.59	37.00	6.61	43.75	47.19	7.13	47.19	47.39	7.16	47.39	47.65	7.20	47.65	47.65	7.24	47.92	47.92	6.78	44.87	44.87	5.84	38.65	38.65
1913.....	235.54	4.67	10.95	5.59	13.11	15.50	6.61	15.50	16.72	8.13	16.72	16.79	7.16	16.79	16.79	7.20	16.89	16.89	7.24	16.98	16.98	7.24	15.90	15.90
1914.....	20.10	3.80	...	4.67	...	...	5.59	...	...	6.61	...	...	7.13	...	...	7.16	...	...	7.20	...	...	7.24	...	...
1915.....	783.40	3.24	21.00	3.80	.76	.94	4.67	.94	5.59	5.59	5.59	6.61	6.61	1.33	1.33	6.61	1.43	1.43	7.16	1.44	1.44	7.20	1.45	1.45
1916.....	...	2.22	...	3.24	25.38	29.77	3.80	29.77	36.58	4.67	36.58	43.79	5.59	43.79	43.79	6.61	51.78	51.78	7.13	55.86	55.86	7.16	56.09	56.09
1917.....	...	1.82	...	2.68	...	...	3.24	...	...	3.80	...	...	4.67	...	...	5.59	...	...	6.61	...	...	7.13	...	...
1918.....	57.69	1.46	7.29	2.22	1.28	1.55	2.68	1.55	3.24	3.24	3.24	3.80	3.80	2.19	2.19	4.67	2.69	2.69	5.59	3.22	3.22	6.61	3.81	3.81
1919.....	499.44	1.16	7.45	1.82	9.09	9.09	2.22	9.09	13.38	2.68	13.38	16.18	16.18	17.21	17.21	3.24	18.98	18.98	4.67	23.32	23.32	5.59	27.92	27.92
1920.....	642.04	1.16	7.45	1.46	9.37	11.68	2.22	11.68	14.25	2.68	14.25	17.21	17.21	2.68	2.68	3.24	20.80	20.80	3.80	24.40	24.40	4.67	29.98	29.98
1921.....	64.21	.91	.58	1.16	.74	.94	1.46	.94	1.82	1.82	1.82	2.22	2.22	1.43	1.43	2.68	1.72	1.72	3.24	2.08	2.08	3.80	2.44	2.44
1922.....	146.34	.71	1.04	.91	1.33	1.16	1.70	1.16	2.14	1.82	2.14	2.66	2.66	2.66	2.66	3.24	3.25	3.25	3.80	3.92	3.92	4.67	4.74	4.74
1923.....	259.50	.55	1.43	.71	1.84	.91	2.36	.91	3.01	1.46	3.01	3.79	3.79	3.79	3.79	4.67	4.72	4.72	5.59	5.76	5.76	6.61	6.95	6.95
1924.....	202.97	.40	.81	.55	1.12	.71	1.44	.71	1.85	1.16	1.85	2.35	2.35	2.35	2.35	3.24	3.69	3.69	4.67	5.76	5.76	6.61	6.95	6.95
1925.....	131.74	.30	.40	.40	.53	.55	.72	.55	.94	.91	.94	.91	.91	.91	.91	1.46	1.53	1.53	1.82	1.92	1.92	2.40	2.40	2.40
1926.....	1,900.07	.20	3.80	.30	5.70	.40	7.60	.40	10.45	.55	10.45	.71	13.49	.91	13.49	.91	17.29	17.29	1.16	22.04	22.04	27.74	27.74	27.74
1927.....	1,843.90	.15	2.77	.20	3.69	.30	5.53	.30	7.38	.40	7.38	.55	10.14	.71	13.09	.91	16.78	16.78	1.16	22.04	22.04	27.74	27.74	27.74
1928.....	851.98	.10	.85	.15	1.28	.20	1.70	.20	2.56	.30	2.56	.40	3.41	.55	4.69	.71	6.05	6.05	.91	7.77	7.77	10.03	10.03	10.03
1929.....	1,412.41	.07	.99	.10	1.41	.15	2.12	.15	2.82	.20	2.82	.30	4.24	.40	5.65	.55	7.77	7.77	.71	10.03	10.03	12.84	12.84	12.84
1930.....	152.26	.06	.09	.07	.11	.10	.15	.10	.23	.15	.23	.20	.30	.30	.46	.46	.61	.61	.40	.61	.61	.84	.84	.84
1931.....	44.91	.05	.02	.06	.03	.07	.03	.07	.04	.15	.04	.15	.07	.07	.10	.20	.20	.20	.13	.20	.20	.30	.30	.30
1932.....	427.86	.04	.13	.05	.16	.06	.20	.06	.23	.10	.23	.10	.33	.33	.49	.49	.66	.66	.20	.66	.66	.98	.98	.98
1933.....	...	.00	...	.04	...	.05	...	.05	.06	.06	.06	.07	.07	.07	.10	.10	.15	.15	.15	.15	.15	.20	.20	.20
Miles 3 in. Equivalent.....	102.29	...	...	124.94	...	...	146.48	...	...	168.42	...	...	192.82	...	...	220.38	...	...	244.90	...	...	266.64	...	...
Per Cent of Total.....	.99	...	...	1.21	...	...	1.42	...	...	1.64	...	...	1.87	...	...	2.14	...	...	2.38	...	...	2.59	...	...

Column A—Miles of Main Line and Tap Line Pipe (10,296.82 Miles Equivalent 3 Inch).
 Column B—Annual Renewal Rates from Distribution Curve I, Including Replacements of Replacements.
 Column C—Calculated Annual Renewals.

Defendant's Exhibit No. 42—Continued

[fol. 9429]

Calculated Future Annual Replacements—Main Lines and Tap Lines—From Mortality Curve I—Continued

Year	1942			1943			1944			1945			1946			1947			1948			1949			
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	
1910.....	9.45	3.77	36	3.35	3.35	32	3.04	29	2.88	2.88	27	2.64	25	2.56	24	2.55	24	2.61	25	2.55	24	2.61	25	2.55	
1911.....	50.16	4.23	2.12	3.77	1.89	3.35	1.68	3.04	1.52	2.88	1.44	2.64	1.32	2.56	1.28	2.56	1.28	2.55	1.28	2.55	1.28	2.55	1.28	2.55	
1912.....	661.85	4.96	32.83	4.23	28.00	3.77	24.95	3.35	22.17	3.04	20.12	2.88	19.06	2.64	17.47	2.56	16.94	2.55	16.94	2.56	16.94	2.55	16.94	2.55	
1913.....	234.54	5.84	13.70	4.96	11.63	4.23	9.92	3.77	8.84	3.35	7.86	3.04	7.13	2.88	6.75	2.64	6.19	2.64	6.19	2.64	6.19	2.64	6.19	2.64	
1914.....	.....	6.78	.....	5.84	.....	4.96	.....	4.23	.....	3.77	.....	3.77	.....	3.35	.....	3.04	.....	2.88	.....	2.88	.....	2.88	.....	2.88
1915.....	20.10	7.24	1.46	6.78	1.36	5.84	1.17	4.96	1.00	4.23	85	3.77	85	3.77	85	3.77	85	3.77	85	3.77	85	3.77	85	3.77	
1916.....	783.40	7.20	56.40	7.24	56.72	6.78	53.11	5.84	45.75	4.96	38.86	4.23	33.14	3.77	29.53	3.35	26.24	3.35	26.24	3.35	26.24	3.35	26.24	3.35	
1917.....	.....	7.16	.....	7.20	.....	6.78	.....	6.78	.....	6.78	.....	6.78	.....	6.78	.....	6.78	.....	6.78	.....	6.78	.....	6.78	.....	6.78
1918.....	57.69	7.13	4.11	7.16	4.13	7.20	4.15	7.24	4.18	7.24	4.18	7.24	4.18	7.24	4.18	7.24	4.18	7.24	4.18	7.24	4.18	7.24	4.18	7.24	
1919.....	499.44	6.61	33.01	7.13	35.61	8.16	35.76	7.20	35.96	7.24	36.16	6.78	33.86	5.84	29.17	4.96	24.77	4.96	24.77	4.96	24.77	4.96	24.77	4.96	
1920.....	642.04	5.59	35.89	6.61	42.44	7.13	45.78	7.16	45.97	7.20	46.23	7.24	46.48	6.78	43.53	5.84	37.50	5.84	37.50	5.84	37.50	5.84	37.50	5.84	
1921.....	64.21	4.67	3.00	5.59	3.59	6.61	4.24	7.13	4.58	7.16	4.60	7.20	4.62	7.24	4.65	6.78	4.35	6.78	4.35	6.78	4.35	6.78	4.35	6.78	
1922.....	146.34	3.80	5.56	4.67	6.83	5.59	8.18	6.61	9.67	7.13	10.43	7.16	10.48	7.20	10.54	7.24	10.60	7.24	10.60	7.24	10.60	7.24	10.60	7.24	
1923.....	259.50	3.24	8.41	3.80	9.86	4.67	12.12	5.59	14.51	6.61	17.15	7.13	18.50	7.16	18.38	7.20	17.68	7.20	17.68	7.20	17.68	7.20	17.68	7.20	
1924.....	202.97	2.69	5.44	3.24	6.58	3.80	7.71	4.67	9.48	5.59	11.35	6.61	13.42	7.13	14.47	7.16	14.53	7.16	14.53	7.16	14.53	7.16	14.53	7.16	
1925.....	131.74	2.22	2.92	2.68	3.53	3.24	4.27	3.80	5.01	4.67	6.15	5.59	7.36	6.61	8.71	7.13	9.39	7.13	9.39	7.13	9.39	7.13	9.39	7.13	
1926.....	1,900.07	1.82	34.58	2.22	42.18	2.68	50.92	3.24	61.56	3.80	72.20	4.67	88.73	5.59	106.21	6.61	125.59	6.61	125.59	6.61	125.59	6.61	125.59	6.61	
1927.....	1,843.90	1.46	26.92	1.82	33.56	2.22	40.93	2.68	49.42	3.24	59.74	3.80	70.07	4.67	86.11	5.59	103.07	5.59	103.07	5.59	103.07	5.59	103.07	5.59	
1928.....	851.98	1.16	9.88	1.46	12.44	1.82	15.51	2.22	18.91	2.68	22.83	3.24	27.60	3.80	32.38	4.67	39.79	4.67	39.79	4.67	39.79	4.67	39.79	4.67	
1929.....	1,412.41	91	12.85	1.16	16.38	1.46	20.62	1.82	25.71	2.22	31.36	2.68	37.85	3.24	45.76	3.80	53.67	3.80	53.67	3.80	53.67	3.80	53.67	3.80	
1930.....	152.26	71	1.08	91	1.39	1.16	1.77	1.46	2.22	1.82	2.77	2.22	3.38	2.68	4.08	3.24	4.93	3.24	4.93	3.24	4.93	3.24	4.93	3.24	
1931.....	44.91	55	1.25	71	32	91	41	1.16	1.46	1.82	2.22	1.82	2.22	1.82	2.22	1.82	2.22	1.82	2.22	1.82	2.22	1.82	2.22	1.82	
1932.....	327.86	40	1.31	55	1.50	1.80	2.33	91	2.98	1.16	3.80	1.46	4.79	1.82	5.97	1.82	7.28	1.82	7.28	1.82	7.28	1.82	7.28	1.82	
1933.....	.....	30	.....	40	.....	55	.....	71	.....	91	.....	1.16	.....	1.16	.....	1.16	.....	1.82	.....	1.82	.....	1.82	.....	1.82
Miles 3 in. Equivalent.....	292.08	320.56	345.82	370.23	398.72	432.98	469.96	509.30	509.30	509.30	509.30	509.30
Per Cent of Total.....	.....	.....	2.84	3.11	.....	3.36	.....	3.60	.....	3.87	.....	4.20	.....	4.56	.....	4.95	.....	4.95	.....	4.95	.....	4.95	.....	4.95

Column A—Miles of Main Line and Tap Line Pipe (10,296.82 Miles Equivalent 3 Inch).

Column B—Annual Renewal Rates from Distribution Curve I, Including Replacements of Replacements.

Column C—Calculated Annual Renewals.

Calculated Future Annual Replacements—Main Lines and Tap Lines—From Mortality Curve I—Continued

Year	1950			1951			1952			1953			1954			1955		
	A	B	C	B	C	C	B	C	C	B	C	C	B	C	C	B	C	C
1910.....	9.45	2.75	26	2.90	27	29	3.12	32	32	3.36	32	35	3.66	35	35	3.95	37	37
1911.....	50.16	2.61	1.31	2.75	1.38	1.45	2.90	1.56	1.56	3.36	1.56	1.69	3.36	1.69	1.69	3.66	1.84	1.84
1912.....	661.85	2.55	16.88	2.61	17.27	18.20	2.75	19.19	19.19	2.90	19.19	20.65	3.12	20.65	20.65	3.36	22.24	22.24
1913.....	234.54	2.56	6.00	2.55	5.98	6.12	2.61	6.45	6.45	2.75	6.45	6.80	2.90	6.80	6.80	3.12	7.32	7.32
1914.....		2.64		2.56			2.55			2.61			2.75			2.90		
1915.....	20.10	2.88	58	2.64	53	51	2.56	51	51	2.55	51	52	2.61	52	52	2.75	55	55
1916.....	783.40	3.04	23.82	2.88	22.56	20.68	2.88	20.68	20.68	2.88	20.68	19.98	2.55	19.98	19.98	2.61	20.45	20.45
1917.....		3.35		3.04			3.04			2.88			2.56			2.55		
1918.....	57.69	3.77	2.17	3.35	1.93	1.75	3.04	1.75	1.75	2.88	1.66	1.66	2.64	1.52	1.52	2.56	1.48	1.48
1919.....	499.44	4.23	21.13	3.77	18.83	16.73	3.35	16.73	16.73	3.04	15.48	15.48	2.88	14.38	14.38	2.64	13.19	13.19
1920.....	642.04	4.96	31.85	4.23	27.16	24.20	3.77	24.20	24.20	3.35	21.51	21.51	3.04	19.52	19.52	2.88	18.49	18.49
1921.....	64.21	5.84	3.75	4.96	3.18	2.72	4.23	2.72	2.72	3.77	2.42	2.42	3.35	2.15	2.15	3.04	1.95	1.95
1922.....	146.34	6.78	9.92	5.84	8.55	7.26	4.96	7.26	7.26	4.23	6.19	6.19	3.77	5.52	5.52	3.35	4.90	4.90
1923.....	259.50	7.24	18.79	6.78	17.59	15.15	5.84	15.15	15.15	4.96	12.87	12.87	4.23	10.98	10.98	3.77	9.78	9.78
1924.....	202.97	7.20	14.61	7.24	14.70	13.76	6.78	13.76	13.76	5.84	11.85	11.85	4.96	10.07	10.07	4.23	8.49	8.49
1925.....	131.74	7.16	9.43	7.20	9.49	9.54	7.24	9.54	9.54	6.78	8.93	8.93	5.84	7.69	7.69	4.96	6.53	6.53
1926.....	1,900.07	7.13	135.47	7.16	136.05	136.81	7.20	136.81	136.81	7.24	137.57	137.57	6.78	128.82	128.82	5.84	110.96	110.96
1927.....	1,843.90	6.61	121.88	7.13	131.47	132.02	7.16	132.02	132.02	7.20	132.76	132.76	7.24	133.50	133.50	6.78	125.02	125.02
1928.....	851.98	5.59	47.63	6.61	56.32	60.75	7.13	60.75	60.75	7.16	61.00	61.00	7.20	61.34	61.34	7.24	61.68	61.68
1929.....	1,412.41	4.67	65.96	5.59	78.95	93.36	6.61	93.36	93.36	7.13	100.70	100.70	7.16	101.13	101.13	7.20	101.69	101.69
1930.....	152.26	3.80	5.79	4.67	7.11	8.51	5.59	8.51	8.51	6.61	10.06	10.06	7.13	10.86	10.86	7.16	10.90	10.90
1931.....	44.91	3.24	1.46	3.80	1.71	2.10	4.67	2.10	2.10	5.59	2.51	2.51	6.61	2.97	2.97	7.13	3.20	3.20
1932.....	327.86	2.68	8.79	3.24	10.62	12.46	3.80	12.46	12.46	4.67	15.31	15.31	5.59	18.33	18.33	6.61	21.67	21.67
1933.....		2.22		2.68			3.24			3.80			4.67			5.59		
Miles 3 in. Equivalent.....	547.48			571.23			584.37			588.61			578.77			552.80		
Per Cent of Total.....	5.32			5.55			5.68			5.72			5.62			5.37		

Column A—Miles of Main Line and Tap Line Pipe (10,296.82 Miles Equivalent 3 Inch).

Column B—Annual Renewal Rates from Distribution Curve I, Including Replacements of Replacements.

Column C—Calculated Annual Renewals.

Defendant's Exhibit No. 42—Continued

[fol. 9431]

Calculated Future Annual Replacements, Removals and Abandonments
Main Lines and Tap Lines—From Mortality Curve II

Table II-A

Year	1934			1935			1936			1937			1938			1939			1940			1941		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1910.....	654.65	96	6.29	97	6.34	98	6.39	98	6.44	99	6.49	1.00	6.55	1.01	6.60	1.02	6.65							
1911.....	50.16	95	48	96	48	97	49	98	49	98	49	99	50	1.00	50	1.01	51							
1912.....	16.65	95	16	95	16	96	16	97	16	98	16	98	16	99	17	1.00	17							
1913.....	380.74	94	3.57	95	3.60	95	3.63	96	2.66	97	3.69	98	3.72	98	3.75	99	3.78							
1914.....	279.41	93	2.60	94	2.62	95	2.64	95	3.66	96	2.69	97	2.71	98	2.73	98	2.75							
1915.....	5.30	92	0.05	93	0.05	94	0.05	95	0.05	95	0.05	96	0.05	97	0.05	98	0.05							
1916.....	372.59	91	3.41	92	3.44	93	3.47	94	3.49	95	3.52	95	3.55	96	3.58	97	3.61							
1917.....		91		92		92		93		93		94		95		96								
1918.....	57.69	90	52	91	52	92	53	92	53	93	54	94	54	95	55	95	55							
1919.....	499.44	90	4.47	90	4.50	91	4.54	92	5.67	92	4.61	93	4.65	94	4.68	95	4.72							
1920.....	642.04	89	5.69	90	5.75	90	5.79	91	5.84	92	5.88	92	5.93	93	5.98	94	6.02							
1921.....	64.21	89	57	89	57	90	57	90	58	91	58	91	58	92	59	92	60							
1922.....	146.34	87	1.28	88	1.29	89	1.30	90	1.31	90	1.32	91	1.33	92	1.34	92	1.35							
1923.....	259.50	87	2.25	87	2.27	88	2.28	89	2.30	90	2.32	90	2.34	91	2.36	92	2.38							
1924.....	202.97	86	1.75	87	1.76	87	1.77	88	1.79	89	1.80	90	1.82	90	1.83	91	1.84							
1925.....	131.74	85	1.12	86	1.13	87	1.14	87	1.15	88	1.16	89	1.17	90	1.18	90	1.19							
1926.....	1,900.07	85	16.07	85	16.21	86	16.34	87	16.47	87	16.59	88	16.72	89	16.85	90	17.01							
1927.....	1,843.90	84	15.47	85	15.60	85	15.73	86	15.86	87	15.99	87	16.10	88	16.23	89	16.36							
1928.....	851.98	83	7.10	84	7.15	85	7.21	85	7.27	86	7.33	87	7.39	87	7.44	88	7.50							
1929.....	1,412.41	83	11.67	83	11.76	84	11.85	85	11.95	85	12.05	86	12.15	87	12.24	87	12.33							
1930.....	152.26	82	1.25	83	1.26	83	1.27	84	1.28	85	1.29	85	1.30	86	1.31	87	1.32							
1931.....	44.91	81	37	82	37	83	37	83	37	84	38	85	38	85	38	86	39							
1932.....	327.86	81	2.64	81	2.67	82	2.69	83	2.71	83	2.73	84	2.75	85	2.77	85	2.80							
1933.....		80		81		81		82		82		83		83		85								
Miles 3 in. Equivalent.....	88.78		89.50		90.21		90.93		91.66		92.40		93.11		93.88									
Per Cent of Total.....	86		87		88		88		89		90		90		91									

Column A—Miles of Main and Tap Line pipe (10,296.82 Miles Equivalent 3 Inch).

Column B—Annual Renewal Rate from Distribution Curve II, Including Replacements of Replacements.

Column C—Calculated Annual Renewals.

Defendant's Exhibit No. 42—Continued

[fol. 9432]

Year	1942			1943			1944			1945			1946			1947			1948			1949		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1910.....	654.65	1.02	6.70	1.03	1.02	6.76	1.04	1.04	6.81	1.05	6.87	1.06	6.92	1.06	6.98	1.06	6.98	1.07	7.03	1.08	7.09	1.08	7.09	
1911.....	50.16	1.02	.51	1.02	.51	.51	1.03	.52	.52	1.04	.52	1.05	.53	1.05	.53	1.06	.53	1.06	.54	1.07	.54	1.07	.54	
1912.....	16.65	1.01	.17	1.02	.17	.17	1.02	.17	.17	1.03	.17	1.04	.17	1.04	.17	1.05	.17	1.06	.18	1.07	.18	1.07	.18	
1913.....	380.74	1.00	3.81	1.01	3.84	3.84	1.02	3.87	3.87	1.02	3.90	1.03	3.93	1.03	3.96	1.04	3.96	1.05	3.99	1.06	4.02	1.06	4.02	
1914.....	279.41	.99	2.77	1.00	2.79	2.79	1.01	2.82	2.82	1.02	2.84	1.02	2.86	1.03	2.88	1.03	2.88	1.04	2.91	1.05	2.93	1.05	2.93	
1915.....	5.30	.98	.05	.99	.05	.05	1.00	.05	.05	1.01	.05	1.02	.05	1.02	.05	1.02	.05	1.03	.05	1.04	.06	1.04	.06	
1916.....	372.59	.98	3.64	.98	3.67	3.67	.99	3.70	3.70	1.00	3.73	1.01	3.76	1.01	3.79	1.02	3.79	1.02	3.82	1.03	3.85	1.03	3.85	
1917.....	.....	.97	.....	.98	.....	.....	.98	.....	.....	.99	.....	1.00	.....	1.00	.....	1.01	.....	1.02	.....	1.02	.....	1.02	.....
1918.....	57.69	.96	.55	.97	.56	.56	.98	.56	.56	.98	.57	.99	.57	.99	.58	1.00	.58	1.01	.58	1.02	.59	1.02	.59	
1919.....	499.44	.95	4.76	.96	4.80	4.80	.97	4.84	4.84	.98	4.87	.98	4.91	.99	4.95	.99	4.95	1.00	4.99	1.01	5.03	1.01	5.03	
1920.....	642.04	.95	6.07	.95	6.12	6.12	.96	6.17	6.17	.97	6.22	.98	6.27	.98	6.32	.98	6.32	.99	6.37	1.00	6.42	1.00	6.42	
1921.....	64.21	.94	.60	.95	.61	.61	.95	.61	.61	.96	.62	.97	.62	.97	.63	.97	.63	.98	.63	.98	.64	.98	.64	
1922.....	146.34	.93	1.36	.94	1.37	1.37	.95	1.38	1.38	.95	1.39	.96	1.41	.96	1.42	.97	1.42	.98	1.43	.98	1.44	.98	1.44	
1923.....	259.50	.92	2.40	.93	2.42	2.42	.94	2.43	2.43	.95	2.45	.95	2.47	.96	2.49	.96	2.49	.97	2.51	.98	2.53	.98	2.53	
1924.....	202.97	.92	1.86	.92	1.88	1.88	.93	1.89	1.89	.94	1.90	.95	1.92	.95	1.93	.95	1.93	.96	1.95	.97	1.97	.97	1.97	
1925.....	131.74	.91	1.20	.92	1.21	1.21	.92	1.22	1.22	.93	1.23	.94	1.24	.94	1.25	.94	1.25	.95	1.26	.96	1.27	.96	1.27	
1926.....	1,900.07	.90	17.14	.91	17.27	17.27	.92	17.40	17.40	.93	17.56	.93	17.69	.93	17.82	.94	17.82	.95	17.97	.95	18.11	.95	18.11	
1927.....	1,843.90	.90	16.50	.90	16.63	16.63	.91	16.76	16.76	.92	16.89	.92	17.04	.92	17.17	.93	17.17	.94	17.30	.95	17.44	.95	17.44	
1928.....	851.98	.89	7.56	.88	7.63	7.63	.90	7.68	7.68	.91	7.74	.92	7.80	.92	7.87	.93	7.87	.93	7.93	.94	7.99	.94	7.99	
1929.....	1,412.41	.88	12.43	.89	12.53	12.53	.90	12.64	12.64	.90	12.74	.91	12.84	.91	12.94	.92	12.94	.92	13.05	.93	13.15	.93	13.15	
1930.....	152.26	.87	1.33	.88	1.34	1.34	.89	1.35	1.35	.90	1.36	.90	1.37	.91	1.38	.91	1.38	.92	1.39	.92	1.41	.92	1.41	
1931.....	44.91	.87	.39	.87	.39	.39	.88	.40	.40	.89	.40	.90	.40	.90	.41	.90	.41	.91	.41	.91	.41	.91	.41	
1932.....	327.86	.86	2.82	.87	2.84	2.84	.87	2.86	2.86	.88	2.89	.89	2.91	.89	2.93	.90	2.93	.90	2.96	.91	2.98	.91	2.98	
1933.....	.....	.85	.....	.86	.....	.....	.87	.....	.....	.87	.....	.88	.....	.88	.....	.89	.....	.90	.....	.90	.....	.90	.....
Miles 3 in. Equivalent.....	94.62	.....	.....	95.39	.....	.....	96.13	.....	.....	96.91	.....	97.68	.....	98.45	.....	99.24	.....	99.96	.....	100.05	.....	.....	.....
Per Cent of Total.....	.....	.92	.....	.....	.93	.....	.....	.93	.....	.....	.94	.....	.....	.....	.96	.....	.....	.....	.....	.....	.97	.....	.....

Column A—Miles of Main Line and Tap Line Pipe (10,236.82 Miles Equivalent 3 Inch).

Column B—Annual Renewal Rate from Distribution Curve II, Including Replacements of Replacements.

Column C—Calculated Annual Renewals.

Defendant's Exhibit No. 42—Continued

[fol. 9433]

Table II-A

Year	1950			1951			1952			1953			1954			1955		
	A	B	C	B	C	B	C	B	C	B	C	B	C	B	C	B	C	
1910.....	654.65	1.09	7.15	1.10	7.20	1.11	7.26	1.12	7.32	1.13	7.38	1.14	7.44	1.14	7.44	1.14	7.44	
1911.....	50.16	1.08	.54	1.09	.55	1.10	.55	1.11	.56	1.12	.56	1.13	.57	1.13	.57	1.13	.57	
1912.....	16.65	1.07	.18	1.08	.18	1.09	.18	1.10	.18	1.11	.18	1.12	.19	1.12	.19	1.12	.19	
1913.....	380.74	1.07	4.06	1.07	4.09	1.08	4.12	1.09	4.16	1.10	4.19	1.11	4.22	1.11	4.22	1.11	4.22	
1914.....	279.41	1.06	2.95	1.07	2.98	1.07	3.00	1.08	3.03	1.09	3.05	1.10	3.07	1.10	3.07	1.10	3.07	
1915.....	5.30	1.05	.06	1.06	.06	1.07	.06	1.07	.06	1.08	.06	1.09	.06	1.09	.06	1.09	.06	
1916.....	372.59	1.04	3.88	1.05	3.91	1.06	3.94	1.07	3.97	1.07	4.00	1.08	4.04	1.08	4.04	1.08	4.04	
1917.....	.....	1.03	.....	1.04	.....	1.05	.....	1.06	.....	1.07	.....	1.07	.....	1.07	.....	1.07	.....
1918.....	57.69	1.02	.59	1.03	.60	1.04	.60	1.05	.61	1.06	.61	1.07	.61	1.07	.61	1.07	.61	
1919.....	499.44	1.02	5.07	1.02	5.11	1.03	5.15	1.04	5.20	1.05	5.24	1.06	5.28	1.06	5.28	1.06	5.28	
1920.....	642.04	1.01	6.47	1.02	6.52	1.03	6.57	1.03	6.63	1.04	6.68	1.05	6.73	1.05	6.73	1.05	6.73	
1921.....	64.21	1.00	.64	1.01	.65	1.02	.65	1.02	.66	1.03	.66	1.04	.67	1.04	.67	1.04	.67	
1922.....	146.34	.99	1.45	1.00	1.46	1.01	1.48	1.02	1.49	1.02	1.50	1.03	1.51	1.03	1.51	1.03	1.51	
1923.....	259.50	.98	2.55	.99	2.57	1.00	2.60	1.01	2.62	1.01	2.64	1.03	2.66	1.03	2.66	1.03	2.66	
1924.....	202.97	.98	1.98	.98	2.00	.99	2.01	1.00	2.03	1.01	2.05	1.02	2.06	1.02	2.06	1.02	2.06	
1925.....	131.74	.97	1.28	.98	1.29	.98	1.30	.99	1.31	.99	1.32	1.01	1.33	1.01	1.33	1.01	1.33	
1926.....	1,900.07	.96	18.26	.97	18.41	.98	18.54	.98	18.70	.99	18.85	1.00	19.00	.99	19.00	.99	19.00	
1927.....	1,843.90	.95	17.57	.96	17.72	.97	17.87	.98	18.00	.98	18.14	.99	18.29	.99	18.29	.99	18.29	
1928.....	851.98	.95	8.06	.95	8.12	.96	8.19	.97	8.26	.98	8.32	.98	8.38	.98	8.38	.98	8.38	
1929.....	1,412.41	.94	13.25	.95	13.36	.95	13.46	.96	13.57	.97	13.69	.98	13.79	.98	13.79	.98	13.79	
1930.....	152.26	.93	1.42	.94	1.43	.95	1.44	.95	1.45	.96	1.46	.96	1.48	.96	1.48	.96	1.48	
1931.....	44.91	.92	.41	.93	.42	.94	.42	.95	.43	.95	.43	.96	.43	.96	.43	.96	.43	
1932.....	327.86	.92	3.00	.92	3.03	.93	3.05	.94	3.08	.95	3.10	.95	3.12	.95	3.12	.95	3.12	
1933.....	.....	.91	.....	.92	.....	.92	.....	.93	.....	.94	.....	.95	.....	.95	.....	.95	.....
Miles 3 In. Equivalent.....	.....	100.82	.....	101.48	.....	102.44	.....	103.31	.....	104.11	.....	104.93	.....	104.93	.....	104.93	.....
Per Cent of Total.....	.....	.98	.....	.99	.....	.99	.....	1.00	.....	1.01	.....	1.01	.....	1.01	.....	1.01	.....

Column A—Miles of Main Line and Tap Line Pipe (10,296.82 Miles Equivalent 3 Inch).

Column B—Annual Renewal Rate from Distribution Curve II, Including Replacements of Replacements.

Column C—Calculated Annual Renewals.

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Table III-A

Determination of Salvable Value in Major Removals

Main Lines, Tap Lines and Field Lines

Based on Analysis of Actual Cost of Forty-Five Lines

	A	B	C	D	E	F
Pipe.....	\$2,846,907.36	25	\$711,726.84	...	...	\$711,726.84
Fittings.....	68,961.32	25	17,240.33	...	...	17,240.33
Installation.....	3,207.94	100	3,207.94	100	\$3,207.94	6,415.88
Lining Up.....	35,689.43	100	35,689.43	...	...	35,689.43
Stringing.....	77,885.45	100	77,885.45	100	77,885.45	155,770.90
Laying.....	117,645.86	100	117,645.86	50	58,822.93	176,468.79
Welding, Material and Labor.....	245,360.70	100	245,360.70	84	206,102.99	451,463.69
Testing.....	12,807.36	100	12,807.36	...	...	12,807.36
Painting.....	110,264.48	100	110,264.48	...	...	110,264.48
Ditching.....	384,201.62	100	384,201.62	50	192,100.81	576,403.43
Backfill.....	53,904.63	100	53,904.63	125	67,380.79	121,685.42
Tie In.....	3,935.56	100	3,935.56	...	...	3,935.56
Hauling.....	14,310.21	100	14,310.21	125	17,887.76	32,197.97
Supervision.....	21,011.77	100	21,011.77	50	10,505.89	31,517.66
Insurance.....	14,270.77	100	14,270.77	50	7,135.39	21,406.16
Tools and Supplies.....	41,955.24	100	41,955.24	75	31,466.43	73,421.67
Storehouse.....	39,292.49	100	39,292.49	100	39,292.49	78,584.98
Traveling.....	13,039.10	100	13,039.10	...	...	13,039.10
Automobiles.....	15,193.55	100	15,193.55	...	...	15,193.55
Clerical and General Overhead.....	234,312.73	100	234,312.73	25	58,578.18	292,890.91
Engineering.....	20,966.14	100	20,966.14	...	...	20,966.14
Rights-of-Way Expenses and Damages.....	168,094.42	100	168,094.42	30	50,428.33	218,522.75
Bull Gang.....	5,269.09	100	5,269.09	100	5,269.09	10,538.18
Total.....	\$4,548,487.22		\$2,361,585.71		\$826,064.47	\$3,187,650.18

Per Cent of Installed Cost Lost on Removal..... 70.08

Column A—Cost to Install.

Column B—Per cent of Cost Lost on Removal.

Column C—Amount lost on Removal.

Column D—Per cent of Cost to Recover.

Column E—Cost of Recovery.

Column F—Total Loss on Removal.

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Defendant's Exhibit No. 42—Continued

[fol. 9435]

Table IV-A

Tabulation Showing Adjusted Annual Reserve Accruals—Main Lines and Tap Lines

Year	A	B	C	D	E	F	G
1934.....	.99	1.122	.86	.60	.96	.20	2.882
1935.....	1.21	1.370	.87	.61	.96	.20	3.140
1936.....	1.42	1.609	.88	.62	.96	.20	3.389
1937.....	1.64	1.858	.88	.62	.96	.20	3.638
1938.....	1.87	2.119	.89	.62	.96	.20	3.899
1939.....	2.14	2.425	.90	.63	.96	.20	4.215
1940.....	2.38	2.697	.90	.63	.96	.20	4.487
1941.....	2.59	2.934	.91	.64	.96	.20	4.734
1942.....	2.84	3.218	.92	.64	.96	.20	5.018
1943.....	3.11	3.524	.93	.65	.96	.20	5.334
1944.....	3.36	3.807	.93	.65	.96	.20	5.617
1945.....	3.60	4.079	.94	.66	.96	.20	5.899
1946.....	3.87	4.385	.95	.67	.96	.20	6.215
1947.....	4.20	4.759	.96	.67	.96	.20	6.589
1948.....	4.56	5.166	.96	.67	.96	.20	6.996
1949.....	4.95	5.608	.97	.68	...	.20	6.488
1950.....	5.32	6.028	.98	.69	...	.20	6.918
1951.....	5.55	6.288	.99	.69	...	.20	7.178
1952.....	5.68	6.435	.99	.69	...	.20	7.325
1953.....	5.72	6.481	1.00	.70	...	.20	7.381
1954.....	5.62	6.367	1.01	.71	...	.20	7.277
1955.....	5.32	6.028	1.01	.71	...	.20	6.938

Column A—Annual Renewal Rates from Mortality Curve I.

Column B—Column A Times Factor. $.96 \times 1.18 = 1.133$.

Column C—Annual Renewal Rates from Mortality Curve II.

Column D—Column C Times Factor. $.70$.Column E—Decline in per cent of new Condition Times Factor $.96$.

Column F—Annual Rate—Major Rehabilitations.

Column G—Sum of Columns B, D, E and F—Annual Reserve Accruals Adopted for:

1. Salvable Value of Material Recovered.
2. Excess Cost of Piece-Meal Replacements.
3. Proportionate part of cost of units non-depreciable.

Defendant's Exhibit No. 42—Continued

[fols. 9436-9437]

Table V-A

Tabulation Showing Cumulative Credit Balance by Years—1934-55
 Growing out of Application of Uniform Annual Rate of 5.40 Per Cent

Year	A	B	C	D	E
1934.....	5.400	2.882	2.518	.....	2.5180
1935.....	5.400	3.140	2.260	.1259	4.9039
1936.....	5.400	3.389	2.011	.2452	7.1601
1937.....	5.400	3.638	1.762	.3580	9.2801
1938.....	5.400	3.899	1.501	.4640	11.2451
1939.....	5.400	5.215	1.185	.5623	12.9924
1940.....	5.400	4.487	.913	.6496	14.5550
1941.....	5.400	4.734	.666	.7278	15.9488
1942.....	5.400	5.018	.382	.7974	17.1282
1943.....	5.400	5.334	.066	.8564	18.0506
1944.....	5.400	5.617	— .217	.9025	18.7361
1945.....	5.400	5.899	— .499	.9368	19.1739
1946.....	5.400	6.215	— .815	.9587	19.3176
1947.....	5.400	6.589	—1.189	.9659	19.0945
1948.....	5.400	6.996	—1.596	.9547	18.4532
1949.....	5.400	6.488	—1.088	.9227	18.2879
1950.....	5.400	6.918	—1.518	.9144	17.6843
1951.....	5.400	7.178	—1.778	.8842	16.7905
1952.....	5.400	7.325	—1.925	.8395	15.7050
1953.....	5.400	7.381	—1.981	.7853	14.5093
1954.....	5.400	7.277	—1.877	.7255	13.3578
1955.....	5.400	6.938	—1.538	.6679	12.4877

Column A—Adopted Uniform Annual Reserve Accrual.

Column B—Calculated Annual Charges—Per Cent of Reproduction Cost New—
Main Lines and Tap Lines.

Column C—Balance.

Column D—Interest on Cumulative Balance at 5 Per Cent.

Column E—Cumulative Credit Balance Including Interest.

[fol. 9438] Annual Rate of Reserve Accrual

Field Lines and Well Lines

[fol. 9439] All of the general factors covered in the discussion of the determination of the Annual Rate of Reserve Accrual—Main Lines and Tap Lines, are applicable to the determination of the annual rate of reserve accrual for Field Lines and Well Lines.

The application of the annual rates required for the failures of pipe due primarily to the physical condition of the pipe from Mortality Curve I to each of the Field Lines and Well Lines in service as of January 1, 1933, giving proper effect to the age of each line and the consequent position of its units on Mortality Curve I, resulted in the following calculated annual rates from 1934 to 1955 inclusive.

Defendant's Exhibit No. 42—Continued

Year	Calculated Miles 3 Inch Equivalent	Per cent of Miles in Service
1934.....	6.77	.43
1935.....	8.37	.53
1936.....	10.31	.66
1937.....	12.56	.80
1938.....	15.08	.96
1939.....	18.12	1.15
1940.....	21.76	1.39
1941.....	26.10	1.66
1942.....	31.03	1.98
1943.....	36.43	2.32
1944.....	41.62	2.65
1945.....	47.28	3.01
1946.....	53.45	3.40
1947.....	60.11	3.83
1948.....	66.05	4.21
1949.....	71.60	4.56
1950.....	77.82	4.96
1951.....	84.81	5.40
1952.....	91.04	5.80
1953.....	94.61	6.02
1954.....	94.93	6.05
1955.....	93.60	5.96

The details of the above calculations are shown in the tabulation—Calculated Future Annual Renewal Rates—Field Lines and Well Lines, from Mortality Curve I—Table VI-A.

The application of the annual rates required for replacement, removals and abandonments due primarily to changed operating conditions from Mortality Curve III to each of the Field Lines and Well Lines in service as of January 1, 1933, giving proper effect to the age of each line and the consequent position of its units on Mortality Curve III resulted in the following calculated annual rates from 1934 to 1955 inclusive.

Defendant's Exhibit No. 42—Continued

Year	Calculated Miles 3 Inch Equivalent	Per cent of Miles in Service
1934	57.83	3.65
1935	59.04	3.76
1936	60.81	3.87
1937	62.62	3.99
1938	64.53	4.11
1939	66.42	4.23
1940	68.44	4.36
1941	70.48	4.99
1942	72.61	4.62
1943	74.82	4.76
1944	76.97	4.90
1945	78.95	5.03
1946	81.31	5.18
1947	83.69	5.33
1948	85.51	5.45
1949	88.04	5.61
1950	90.58	5.77
1951	93.07	5.93
1952	95.83	6.10
1953	98.40	6.27
1954	99.21	6.32
1955	103.02	6.56

The details of the above calculations are shown in the tabulation—Calculated Future Annual Replacements, Removals and Abandonments—Field Lines and Well Lines, from Mortality Curve III—Table VII-A.

In the case of Field Lines and Well Lines, no annual allowance has been included to cover the future cost of major rehabilitations.

The decline in per cent of new condition in Field Lines and Well Lines will conform to the decline in per cent of new in the property as a whole and the annual rate of one [fol. 9441] per cent is, therefore, included as a part of the total annual rate of reserve accrual—Field Lines and Well Lines.

As in the case of Main Lines and Tap Lines, certain factors must be applied to the annual rates based upon the estimated future rate of occurrence expressed as a percentage of the units in service in order to compensate for the salvable value of material recovered, the excess cost of piece-meal replacements over unit costs developed from a wholesale reproduction cost estimate, and the percentage of the property units not subject to depreciation or replacement.

The estimate for each of these factors is based primarily upon the analysis made for the corresponding factors for Main Lines and Tap Lines with certain modifications made necessary by the service conditions applicable to Field Lines and Well Lines.

1. Salvable value of materials recovered—replacements, removals and abandonments due to changed operating conditions.

In the case of Main Lines and Tap Lines as developed from the detail analysis in Table III-A, the loss in removals wherein the condition of the material removed was assumed to be 100 per cent of new was found to be 70 per cent of the total installed cost. In the case of Field Lines and Well Lines, the same analysis has been used with the reduction of the per cent of new condition of the material removed to 75 per cent of new, and an estimated cost of 25 per cent of this amount for reconditioning, loss of footage, repair of pipe ends and other like costs. This adjustment results in an estimated loss of 82 per cent of the original installation cost. This factor, .82, will be applied to all calculated future annual rates from Mortality Curve III.

- [fol. 9442] 2. Excess cost of piece-meal replacements over unit costs developed by wholesale reproduction cost estimate.

From the analysis of the actual cost of piece-meal replacements, it was determined that the ratio of the unit costs of such replacements to corresponding unit costs, wholesale reproduction basis, was 1.50 to 1.00. It was also determined that the cost of pipe and fittings (new) was 42.7 per cent of the total cost of piece-meal replacements. When replacements are made in Field Lines and Well Lines by reason of the physical condition of the pipe, the pipe removed will not have the same potential salvable value as pipe removed from

Main Lines and Tap Lines for similar reasons. In the estimate made for Main Lines and Tap Lines, an extremely liberal estimate of 50 per cent of new was placed on the pipe replaced by reason of physical condition. In the estimate for Field Lines and Well Lines, this estimated salvable value has been reduced to 30 per cent of new. This allowance, which is liberal for this factor, reduces the net salvable for Field Lines and Well Lines to 12.8 per cent (42.7 per cent times 30 per cent), and fixes the factors necessary to provide for the increased cost of piece-meal replacements at 1.308 ($1.50 \times .872$). This factor will be applied to the future annual renewal rates developed from Mortality Curve I in order to translate the annual rate based upon the future rate of occurrence to the future "cost" of annual replacements expressed as a percentage of reproduction cost new, Field Lines and Well Lines.

3. Percentage of reproduction cost not subject to replacements or depreciation:

In the case of Main Lines and Tap Lines, an analysis of the cost of rights-of-way and lands, which items are not sub-[fol. 9443] ject to replacement in piece-meal replacements, or replacements due primarily to the physical condition of the pipe or to depreciation, were found to be approximately four per cent of the total installed cost of Main Lines and Tap Lines. For Field Lines and Well Lines, the proportionate part of the total investment represented by non-depreciable items is approximately one per cent of the total installed cost. The factor, .99, will, therefore, be applied to the annual rates from Mortality Curve I, and the annual percentage designed to provide for the future decline in per cent of new condition.

This concludes the discussion of the various factors required to reduce the indicated future rates of replacements, removals and abandonments from the mortality curves and distribution curves of annual renewals or replacements to annual rates, which when applied to the reproduction cost of Field Lines and Well Lines, will properly reflect the effect of the proportionate part of these property groups not subject to replacement, the effect of the salvable value of materials recovered; and the effect of excess unit costs of piece-meal replacements over corresponding unit costs in whole-sale reproduction.

Table VIII-A sets out in detail the results of the application of the factors to the basic annual rates. For convenience and reference, the results of this application are shown in the following summary:

Year	Field Lines and Well Lines Adjusted Total Annual Rates
1934	4.540 per cent
1935	4.759
1936	5.018
1937	5.298
[fol. 9444] 1938	5.603
1939	5.948
1940	6.365
1941	6.822
1942	7.342
1943	7.897
1944	8.440
1945	9.013
1946	9.641
1947	10.321
1948	10.911
1949	10.505
1950	11.154
1951	11.856
1952	12.513
1953	12.937
1954	13.017
1955	13.097

These future rates are expressed as percentages per annum, which when applied to the reproduction cost new of Field Lines and Well Lines in service in the system of Lone Star Gas Company as of January 1, 1933, are designed to provide for:

1. The future net Cost of replacements and abandonments due primarily to the physical condition of the pipe.
2. The future net Cost of replacements, removals and abandonments due primarily to changed operating conditions.
3. The value lost through future decline in per cent of new condition.

It will be noted the calculated annual rates are a series of variables. As in the case of the total annual reserve accrual estimated for Main Lines and Tap Lines, the corresponding accrual for Field Lines and Well Lines has been determined as a uniform rate of accrual that will fulfil the indicated requirements.

As in the case of the calculations for Main Lines and Tap Lines, a uniform annual accrual designed to provide the necessary annual funds indicated by the application of the [fol. 9445] adjusted total annual rates to the reproduction cost of Field Lines and Well Lines will create a credit balance during the earlier years of the accrual. The use of this credit balance, and the interest earned upon it, will tend to reduce the indicated amount of the uniform annual accrual.

Consideration has been given to this fact in fixing the uniform annual rate. The average annual rate from 1934 to 1962, inclusive, is 9.38 per cent. The uniform annual rate adopted is 8.60 per cent.

In Table IX-A, there is set out the effect of applying five per cent interest compounded annually to the credit balance derived from deducting the calculated annual rates from the adopted uniform annual accrual, 8.60 per cent. It will be noted from an inspection of the tabulation that the credit balance increases to a maximum of 39.53 per cent in 1947, and thereafter declines to 10.00 per cent in 1968 due to the excess of the estimated charges over the uniform annual accrual in the later years. The credit balance would have been absorbed had these calculations been carried to approximately forty-five years beyond 1934. The credit balance at no time would be free capital.

Defendant's Exhibit No. 42—Continued

[fol. 9446]

Table VI-A

Calculated Future Annual Renewal Rates

Field Lines and Well Lines—From Mortality Curve I

Year	1934			1935			1936			1937			1938			1939			1940			1941		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1909	2.61	7.16	.19	7.20	7.20	.19	7.24	7.24	.19	6.78	6.78	.15	5.84	5.84	.13	4.96	4.96	.13	4.23	4.23	.11	3.77	3.77	.10
1910	10.04	7.13	.72	7.16	7.16	.72	7.20	7.20	.72	7.24	7.24	.68	6.78	6.78	.59	5.84	5.84	.59	4.96	4.96	.50	4.23	4.23	.42
1911		6.61		7.13			7.16			7.20			7.24			6.78			5.84			4.96		
1912	2.08	5.59	.12	6.61	7.13	.15	7.13	7.16	.15	7.16	7.16	.15	7.20	7.24	.15	7.24	7.24	.15	6.78	7.24	.14	5.84	7.24	.12
1913	22.32	4.67	1.04	5.59	1.25	6.61	1.48	6.61	1.59	7.13	1.59	7.16	1.60	7.16	1.61	7.20	7.24	1.61	6.78	7.24	1.62	6.78	7.24	1.51
1914		3.80	.01	4.67	.01	5.59	.14	5.59	.17	6.61	.20	7.13	.20	7.13	.22	7.13	7.16	.22	7.16	7.16	.22	7.20	7.20	.22
1915	3.10	3.24	.10	3.80	12	4.67	.14	4.67	.17	5.59	.20	6.61	.20	7.13	.22	7.13	7.16	.22	7.16	7.16	.22	7.20	7.20	.22
1916	4.85	2.68	.13	3.24	3.24	.18	3.80	4.62	.23	5.59	.27	6.61	.27	7.13	.32	7.13	7.16	.32	7.13	7.16	.35	7.16	7.16	.35
1917		15		2.68			3.24	3.80	.01	4.67	.01	5.59	.01	6.61	.01	7.13	7.16	.01	6.61	7.16	.01	7.13	7.16	.01
1918	8.50	1.82	.15	2.22	2.22	.19	2.68	3.24	.28	3.80	.32	4.67	.32	5.59	.40	6.61	7.16	.40	5.59	7.16	.48	6.61	7.16	.56
1919	70.55	1.46	1.03	1.82	1.28	1.57	2.68	2.68	1.89	3.24	2.29	3.80	2.68	3.80	2.68	4.67	5.59	2.68	4.67	5.59	3.29	5.59	3.94	
1920	100.05	1.16	1.16	1.46	1.46	1.82	1.82	2.22	2.22	2.68	2.68	3.24	2.68	3.24	3.24	3.80	4.67	3.24	3.80	4.67	3.80	4.67	4.67	
1921	37.25	.91	.34	1.16	1.16	.54	1.46	1.82	.68	2.22	.83	2.68	.83	3.24	1.00	3.24	3.80	1.00	3.24	3.80	1.21	3.80	1.42	
1922	10.60	.71	.08	.91	.91	.12	1.46	1.46	.15	1.82	.19	2.22	.19	2.68	.24	2.68	3.24	.24	2.68	3.24	.28	3.24	.34	
1923	24.46	.55	.13	.71	.71	.22	1.16	1.16	.28	1.46	.36	1.82	.36	2.22	.45	2.22	2.68	.45	2.22	2.68	.54	2.68	.66	
1924	127.52	.40	.51	.55	.55	.70	.91	.91	.91	.91	1.16	1.16	1.48	1.86	1.86	1.82	2.22	1.86	1.82	2.32	2.22	2.68	.83	
1925	45.82	.30	.14	.40	.40	.25	.71	.71	.33	.91	.42	1.16	.42	1.46	.53	1.46	1.82	.53	1.46	1.82	.67	1.82	.83	
1926	96.33	.20	.19	.30	.30	.39	.55	.55	.53	.71	.68	.91	.68	.91	.88	1.16	1.46	.88	1.16	1.46	1.12	1.46	1.41	
1927	44.80	.15	.07	.20	.20	.29	.40	.40	.30	.40	.25	.71	.25	.71	.32	.91	1.16	.32	.91	1.16	.41	1.16	.52	
1928	181.98	.10	.18	.15	.15	.27	.36	.36	.30	.40	.18	.55	.18	.55	.71	.73	.91	.73	.91	1.29	.91	1.16	.66	
1929	354.56	.07	.25	.10	.10	.35	.15	.53	.20	.30	.10	.30	1.06	.40	1.42	.55	.71	1.00	.55	.71	1.29	.91	1.66	
1930	266.81	.06	.16	.07	.07	.27	.15	.53	.20	.30	.10	.30	1.06	.40	1.42	.55	.71	1.00	.55	.71	1.29	.91	1.66	
1931	57.28	.05	.03	.06	.06	.19	.10	.24	.15	.27	.10	.24	.10	.24	.11	.30	.40	.11	.30	.40	1.07	.55	1.47	
1932	98.52	.04	.04	.05	.05	.06	.06	.06	.07	.07	.10	.10	.10	.10	.15	.15	.20	.15	.20	.20	.20	.30	.30	
1933				.04		.05			.06				.07			.10			.15			.20		
Miles 3 in. equivalent.	6.77		10.31	8.37		12.56		15.08		18.12		21.76		26.10		31.24		36.38		41.52		46.66		
Per cent of total.	43		66	53		80		96		115		130		146		161		176		191		206		

1942 1943 1944 1945 1946 1947 1948 1949

Year	A	B	C	B	C	B	C	B	C	B	C	B	C
1909.....	2.61	3.35	.09	3.04	.08	2.88	.08	2.64	.07	2.56	.07	2.61	.07
1910.....	10.04	3.77	.38	3.35	.34	3.04	.31	2.88	.29	2.64	.27	2.55	.26
1911.....	.....	4.23	.....	3.77	.....	3.35	.....	3.04	.....	2.88	.....	2.56	.....
1912.....	20.8	4.96	.10	4.23	.09	3.77	.08	3.35	.07	3.04	.06	2.88	.05
1913.....	22.32	5.84	1.30	4.96	1.11	4.23	.94	3.77	.84	3.35	.75	2.88	.64
1914.....	16	6.78	.01	5.84	.01	4.96	.01	4.23	.01	3.77	.01	3.35	.01
1915.....	3.10	7.24	.22	6.78	.21	5.84	.18	4.96	.15	4.23	.13	3.77	.12
1916.....	4.85	7.20	.35	7.24	.35	6.78	.33	5.84	.28	4.96	.24	4.23	.21
1917.....	15	7.16	.01	7.20	.01	7.24	.01	6.78	.01	5.84	.01	4.96	.01
1918.....	8.50	7.73	4.66	7.16	.61	7.20	.61	7.24	.62	6.78	.58	5.84	.50
1919.....	70.55	6.61	4.66	7.13	5.03	7.16	5.05	7.20	5.08	7.24	5.11	6.78	4.78
1920.....	109.05	5.59	5.59	6.61	6.61	7.13	7.13	7.16	7.16	7.20	7.20	7.24	7.24
1921.....	37.25	4.67	1.74	5.59	2.08	6.61	2.46	7.13	2.66	7.16	2.67	7.20	2.68
1922.....	10.60	3.80	.40	4.67	.50	5.59	.59	6.61	.70	7.13	.76	7.20	.76
1923.....	24.46	3.24	.79	3.80	.93	4.67	1.14	5.59	1.37	6.61	1.62	7.16	1.74
1924.....	127.52	2.68	3.42	3.24	4.13	3.80	4.85	4.67	5.96	5.59	7.13	6.61	8.43
1925.....	45.82	2.22	1.02	2.68	1.23	3.24	1.48	3.80	1.74	4.67	2.14	5.59	2.56
1926.....	96.33	1.82	1.75	2.22	2.14	2.68	2.58	3.24	3.12	3.80	3.66	4.67	4.50
1927.....	44.80	1.46	.65	1.82	.82	2.22	.99	2.68	1.20	3.24	1.45	3.80	1.70
1928.....	181.98	1.16	2.11	1.46	2.66	1.82	3.31	2.22	4.04	2.68	4.88	3.24	5.90
1929.....	354.56	.91	3.23	1.16	4.11	1.46	5.18	1.82	6.45	2.22	7.87	2.68	9.50
1930.....	266.81	.71	1.89	.91	2.43	1.16	3.09	1.46	3.90	1.82	4.86	2.22	5.92
1931.....	57.28	.55	.32	.71	.41	.91	.52	1.16	.66	1.46	.84	1.82	1.04
1932.....	98.52	.40	.39	.55	.54	.71	.70	.91	.90	1.16	1.14	1.46	1.44
1933.....	.....	.30	.....	.40	.....	.55	.....	.71	.....	.91	.....	1.46	.....
Miles 3 in. equivalent.	31.03	.....	.....	36.42	41.62	47.28	53.45	60.11	66.05	71.60	.....	.....	.....
Per cent of total.....	1.98	.....	.....	2.32	2.65	3.01	3.40	3.83	4.21	4.56	.....	.....	.....

Column A—Miles of Field and Well Line Pipe (1,570.34 Miles Equivalent 3 Inch).

Column B—Annual Renewal Rate from Distribution Curve I, Including Replacements of Replacements.

Column C—Calculated Annual Renewals.

Defendant's Exhibit No. 42—Continued

Calculated Future Annual Renewal Rates—Continued
Field Lines and Well Lines—From Mortality Curve I

[fol. 9448]

Year	1950		1951		1952		1953		1954		1955		1956		1957	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
1909.....	2.61	2.90	3.12	.08	3.36	.09	3.66	.10	3.95	.10	4.24	.11	4.52	.12	4.75	.12
1910.....	10.04	2.75	2.90	.29	3.36	.31	3.36	.34	3.66	.37	3.96	.40	4.24	.43	4.52	.45
1911.....	...	2.61	2.75	...	3.12	...	3.12	...	3.36	...	3.66	...	3.95	...	4.24	...
1912.....	2.08	2.55	.05	.05	2.75	.06	2.90	.06	3.12	.06	3.36	.07	3.66	.08	3.95	.08
1913.....	22.32	2.56	.57	.57	2.61	.58	2.75	.61	2.90	.65	3.12	.70	3.36	.75	3.66	.82
1914.....	16	2.64	...	...	2.55	...	2.61	...	2.75	...	2.90	...	3.12	...	3.36	.01
1915.....	3.10	2.88	2.56	.08	2.56	.07	2.55	.08	2.61	.08	2.75	.09	2.90	.09	3.12	.10
1916.....	4.85	3.04	2.88	.14	2.64	.13	2.56	.12	2.55	.12	2.61	.13	2.75	.13	2.90	.14
1917.....	15	3.35	3.04	...	2.88	...	2.64	...	2.56	...	2.55	...	2.61	...	2.75	...
1918.....	8.50	3.77	3.35	.28	3.04	.26	2.88	.24	2.64	.22	2.56	.22	2.55	.22	2.61	.22
1919.....	70.55	4.23	3.77	2.66	3.35	2.36	3.04	2.14	2.88	2.03	2.64	1.86	2.56	1.81	2.55	1.80
1920.....	100.05	4.96	4.23	4.23	3.77	3.77	3.35	3.35	3.04	3.04	2.88	2.88	2.64	2.64	2.56	2.56
1921.....	37.25	5.84	4.96	1.85	4.23	1.58	3.77	1.40	3.35	1.25	3.04	1.13	2.88	1.07	2.64	.98
1922.....	10.60	6.78	5.84	.62	4.96	.53	4.23	.45	3.77	.40	3.35	.36	3.04	.32	2.88	.31
1923.....	24.46	7.24	6.78	1.66	5.84	1.43	4.96	1.21	4.23	1.03	3.77	.92	3.35	.72	3.04	.74
1924.....	127.52	7.20	7.24	9.23	6.78	8.65	5.84	7.45	4.96	6.32	4.23	5.39	3.77	4.81	3.35	4.27
1925.....	45.82	7.16	7.20	3.30	7.20	3.32	6.78	3.11	5.84	2.68	4.96	2.27	4.23	1.94	3.77	1.73
1926.....	96.33	7.13	6.87	7.16	7.20	6.94	7.24	6.97	6.78	6.53	5.84	6.53	4.96	4.78	4.23	4.07
1927.....	44.80	6.61	7.13	3.19	7.16	3.21	7.20	3.23	7.24	3.24	6.78	3.04	5.84	4.78	4.23	4.07
1928.....	181.98	5.59	6.61	12.03	7.13	12.98	7.16	13.03	7.20	13.10	7.24	13.18	6.78	12.34	5.84	10.63
1929.....	354.56	4.67	5.59	19.82	6.61	23.44	7.13	25.28	7.16	25.39	7.20	25.53	7.24	25.67	6.78	24.04
1930.....	266.81	3.24	4.67	12.46	5.59	14.91	6.61	17.64	7.13	19.02	7.16	19.10	7.20	19.21	7.24	19.32
1931.....	57.28	3.24	3.80	2.18	4.67	2.67	5.59	3.20	6.61	3.79	7.13	4.08	7.16	7.20	7.24	4.12
1932.....	98.52	2.68	4.24	3.19	3.80	3.74	4.67	4.60	5.59	5.51	6.61	6.51	7.13	7.02	7.16	7.05
1933.....	...	2.22	2.68	...	3.24	...	3.80	...	4.67	...	5.59	...	6.61	...	7.13	...
Miles 3 in. equivalent.	77.82	...	84.81	...	91.04	...	94.61	...	94.93	...	93.60	...	90.97	...	85.78	...
Per cent of total.....	4.96	...	5.40	...	5.80	...	6.02	...	6.05	...	5.96	...	5.79	...	5.46	...

Column A—Miles of Field and Well Line Pipe (1.57034 Miles Equivalent 3 Inch).
Column B—Annual Renewal Rate from Distribution Curve I Including Replacements of Replacements.

[Col. 9449]

Table VII-A.

Calculated Future Annual Replacements, Removals and Abandonments

Field Lines and Well Lines—Mortality Curve III

Year	1934			1935			1936			1937			1938			1939			1940			1941		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1909.....	2.61	6.10	.16	6.28	6.10	.16	6.47	6.10	.17	6.66	6.47	.17	6.86	6.66	.18	7.07	6.86	.18	7.28	7.07	.19	7.50	7.28	.20
1910.....	10.04	5.92	.59	5.10	5.92	.61	6.28	6.10	.63	6.47	6.28	.65	6.66	6.47	.67	6.86	6.66	.69	7.07	6.86	.71	7.28	7.07	.73
1911.....	...	5.75	...	5.92	5.75	...	6.10	5.92	...	6.28	6.10	...	6.47	6.28	...	6.66	6.47	...	6.86	6.66	...	7.07	6.86	...
1912.....	2.08	5.58	...	5.75	5.58	...	5.92	5.75	...	6.10	5.92	...	6.28	6.10	...	6.48	6.28	...	6.66	6.48	...	6.86	6.66	...
1913.....	22.32	5.42	1.21	5.42	5.26	1.25	5.75	5.42	1.28	5.92	5.75	1.32	6.10	5.92	1.36	6.28	6.10	1.40	6.47	6.28	1.44	6.66	6.47	1.49
1914.....	...	5.26	.01	5.42	5.26	.01	5.58	5.42	.01	5.75	5.58	.01	5.92	5.75	.01	6.10	5.92	.01	6.28	6.10	.01	6.48	6.28	.01
1915.....	3.10	5.11	.16	5.26	5.11	.25	5.42	5.26	.26	5.58	5.42	.26	5.75	5.58	.27	5.92	5.75	.28	6.10	5.92	.29	6.28	6.10	.30
1916.....	4.85	4.96	.24	5.11	4.96	.01	5.26	5.11	.01	5.42	5.26	.01	5.58	5.42	.01	5.75	5.58	.01	5.92	5.75	.01	6.10	5.92	.01
1917.....	...	4.81	.01	4.96	4.81	.01	5.11	4.96	.01	5.26	5.11	.01	5.42	5.26	.01	5.58	5.42	.01	5.75	5.58	.01	5.92	5.75	.01
1918.....	8.50	4.67	.40	4.81	4.67	.41	4.96	4.81	.42	5.11	4.96	.43	5.26	5.11	.45	5.42	5.26	.46	5.58	5.42	.47	5.75	5.58	.49
1919.....	70.55	4.54	3.20	4.67	4.54	3.29	4.81	4.67	3.39	4.96	4.81	3.50	5.11	4.96	3.61	5.26	5.11	3.71	5.42	5.26	3.82	5.58	5.42	3.94
1920.....	100.05	4.41	4.41	4.54	4.41	4.54	4.67	4.54	4.67	4.81	4.67	4.81	4.96	4.81	4.96	5.11	4.96	5.11	5.26	5.11	5.26	5.42	5.26	5.42
1921.....	37.25	4.28	1.59	4.41	4.28	1.64	4.54	4.41	1.69	4.67	4.54	1.74	4.81	4.67	1.79	4.96	4.81	1.85	5.11	4.96	1.90	5.26	5.11	1.96
1922.....	10.60	4.15	.44	4.28	4.15	.45	4.41	4.28	.47	4.54	4.41	.48	4.67	4.54	.49	4.81	4.67	.51	4.96	4.81	.53	5.11	4.96	.54
1923.....	24.46	4.03	.99	4.15	4.03	1.02	4.28	4.15	1.05	4.41	4.28	1.08	4.54	4.41	1.11	4.67	4.54	1.14	4.81	4.67	1.18	4.96	4.81	1.21
1924.....	127.52	3.91	4.99	4.03	3.91	5.14	4.15	4.03	5.29	4.28	5.46	4.41	4.28	4.15	5.62	4.54	5.79	4.67	5.96	4.81	6.13	4.96	6.13	
1925.....	45.82	3.80	1.74	3.91	3.80	1.79	4.03	3.91	1.85	4.15	4.03	1.90	4.28	4.15	1.96	4.41	4.28	2.02	4.54	4.41	2.08	4.67	4.54	2.14
1926.....	96.33	3.69	3.55	3.80	3.69	3.66	3.91	3.77	3.77	4.03	3.88	4.15	4.03	3.91	4.00	4.28	4.12	4.41	4.25	4.41	4.25	4.54	4.37	4.37
1927.....	44.80	3.58	1.60	3.69	3.58	1.65	3.80	3.69	1.70	3.91	3.88	4.03	3.91	3.80	4.00	4.15	3.86	4.28	4.12	4.41	4.12	4.41	4.12	1.98
1928.....	181.98	3.48	6.33	3.58	3.48	6.51	3.69	6.72	6.72	3.80	6.92	3.91	7.12	6.92	7.12	4.03	7.33	7.33	4.15	4.28	7.55	4.28	7.79	7.79
1929.....	354.56	3.38	11.98	3.48	3.38	12.34	3.58	12.69	12.69	3.69	13.08	3.80	13.47	3.91	13.86	4.03	14.29	14.29	4.15	4.28	14.71	4.15	14.71	14.71
1930.....	266.81	3.28	8.75	3.38	3.28	9.02	3.48	9.28	9.28	3.58	9.55	3.69	9.85	3.80	10.14	3.91	10.43	10.43	4.03	4.15	10.75	4.03	10.75	10.75
1931.....	57.28	3.18	1.82	3.28	3.18	1.88	3.38	3.48	1.94	3.48	3.58	1.99	3.69	3.58	2.05	3.80	3.69	2.11	3.91	3.80	2.18	3.91	3.80	2.44
1932.....	98.52	3.09	3.04	3.18	3.09	3.13	3.28	3.38	3.23	3.38	3.48	3.33	3.48	3.38	3.43	3.58	3.53	3.53	3.69	3.69	3.64	3.80	3.80	3.74
Miles 3 in. equivalent:	57.33			59.04			60.81			62.62			64.53			66.42			68.44			70.48		
Percent of total.....	3.65			3.76			3.87			3.99			4.11			4.23			4.36			4.49		

Column A—Miles of Field and Well Line Pipe (1,570.34 Miles Equivalent 3 Inch).
 Column B—Annual Renewal Rate from Distribution Curve III, Including Replacements of Replacements.
 Column C—Calculated Annual Renewals.

Defendant's Exhibit No. 42—Continued

Calculated Future Annual Replacements, Removals and Abandonments—Continued
Field Lines and Well Lines—Mortality Curve III

[fol. 9450]

Year	1942			1943			1944			1945			1946			1947			1948			1949		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1909	2.61	7.21	.20	7.96	7.50	.21	5.20	7.96	.14	5.26	7.96	.14	5.33	7.96	.14	5.39	7.96	.14	5.45	7.96	.14	5.52	7.96	.14
1910	10.04	7.50	.75	7.72	7.72	.77	7.96	7.72	.80	5.20	7.96	.52	5.26	7.96	.53	5.33	7.96	.54	5.39	7.96	.54	5.45	7.96	.55
1911	2.08	7.07	.15	7.28	7.50	.15	7.50	7.72	.16	7.72	7.96	.16	7.96	7.96	.17	5.20	7.96	.17	5.26	7.96	.17	5.33	7.96	.17
1912	2.32	6.86	1.53	7.07	7.28	1.58	7.28	7.28	1.62	7.50	7.50	1.67	7.72	7.72	1.72	7.96	7.96	1.78	5.20	7.96	1.16	5.26	7.96	1.17
1913	3.10	6.47	.20	6.66	7.07	.21	6.86	7.07	.21	7.07	7.28	.22	7.28	7.28	.23	7.50	7.28	.23	7.72	7.28	.24	7.96	7.28	.25
1914	4.85	6.28	.30	6.47	6.66	.31	6.66	6.66	.32	6.86	6.86	.33	7.07	7.07	.34	7.28	7.28	.35	7.50	7.50	.36	7.72	7.50	.37
1915	15.15	6.10	.01	6.25	6.25	.01	6.47	6.47	.01	6.66	6.66	.01	6.86	6.86	.01	7.07	7.07	.01	7.28	7.28	.01	7.50	7.28	.01
1916	8.50	5.92	.50	6.10	6.10	.52	6.28	6.28	.53	6.47	6.47	.55	6.66	6.66	.57	6.86	6.86	.58	7.07	7.07	.60	7.28	7.28	.62
1917	70.55	5.75	4.06	5.92	5.92	4.18	6.10	6.10	4.30	6.28	6.28	4.43	6.47	6.47	4.56	6.66	6.66	4.70	6.86	6.86	4.84	7.07	7.07	4.99
1918	100.05	5.58	5.58	5.75	5.75	5.75	5.92	5.92	5.92	6.10	6.10	6.10	6.28	6.28	6.28	6.47	6.47	6.47	6.66	6.66	6.66	6.86	6.86	6.86
1919	37.25	5.42	2.02	5.58	5.58	2.08	5.25	5.25	2.14	5.92	5.92	2.21	6.10	6.10	2.27	6.28	6.28	2.34	6.47	6.47	2.41	6.66	6.66	2.48
1920	10.60	5.26	.56	5.42	5.42	.57	5.58	5.58	.59	5.75	5.75	.61	5.92	5.92	.63	6.10	6.10	.65	6.28	6.28	.67	6.47	6.47	.69
1921	24.46	5.11	1.25	5.26	5.26	1.29	5.42	5.42	1.33	5.58	5.58	1.36	5.75	5.75	1.41	5.92	5.92	1.45	6.10	6.10	1.49	6.28	6.28	1.54
1922	127.52	4.96	6.32	5.11	5.11	6.52	5.26	5.26	6.71	5.42	5.42	6.91	5.58	5.58	7.12	5.75	5.75	7.33	5.92	5.92	7.55	6.10	6.10	7.78
1923	45.82	4.81	2.20	4.96	4.96	2.27	5.11	5.11	2.34	5.26	5.26	2.41	5.42	5.42	2.48	5.58	5.58	2.56	5.75	5.75	2.63	5.92	5.92	2.71
1924	96.33	4.67	4.50	4.81	4.81	4.63	4.96	4.96	4.78	5.11	5.11	4.92	5.26	5.26	5.07	5.42	5.42	5.22	5.58	5.58	5.38	5.75	5.75	5.54
1925	44.80	4.54	2.03	4.67	4.67	2.09	4.81	4.81	2.15	4.96	4.96	2.22	5.11	5.11	2.29	5.26	5.26	2.36	5.42	5.42	2.43	5.58	5.58	2.50
1926	181.98	4.41	8.03	4.54	4.54	8.26	4.67	4.67	8.50	4.81	4.81	8.75	4.96	4.96	9.03	5.11	5.11	9.30	5.26	5.26	9.57	5.42	5.42	9.86
1927	354.56	4.28	15.18	4.41	4.41	15.64	4.54	4.54	16.10	4.67	4.67	16.56	4.81	4.81	17.05	4.96	4.96	17.59	5.11	5.11	18.12	5.26	5.26	18.65
1928	266.81	4.15	11.07	4.28	4.28	11.42	4.41	4.41	11.77	4.54	4.54	12.11	4.67	4.67	12.46	4.81	4.81	12.83	4.96	4.96	13.23	5.11	5.11	13.63
1929	57.28	4.03	2.31	4.15	4.15	2.38	4.28	4.28	2.45	4.41	4.41	2.53	4.54	4.54	2.60	4.67	4.67	2.67	4.81	4.81	2.76	4.96	4.96	2.84
1930	98.52	3.91	3.85	4.03	4.03	3.97	4.15	4.15	4.09	4.28	4.28	4.22	4.41	4.41	4.34	4.54	4.54	4.47	4.67	4.67	4.60	4.81	4.81	4.74
1931																								
1932																								

Miles 2 in. equivalent

Percent of total.....

[fol. 9451]

Year	1950			1951			1952			1953			1954			1955			1956			1957		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1909.....	2.61	5.58	15	5.64	5.58	15	5.70	5.75	15	5.75	5.70	15	5.81	5.75	15	5.86	5.81	13	6.23	5.86	16	6.26	5.86	16
1910.....	10.04	5.52	55	5.58	5.52	56	5.64	5.64	57	5.64	5.58	57	5.75	5.70	58	5.81	5.75	58	5.86	5.81	59	6.23	5.86	63
1911.....		5.45		5.52	5.45		5.58	5.58		5.58	5.52		5.70	5.64		5.75	5.70		5.81	5.75		5.86	5.81	
1912.....	2.08	5.39	11	5.45	5.39	11	5.52	5.52	11	5.58	5.52	12	5.64	5.58	12	5.70	5.64	12	5.75	5.70	12	5.81	5.75	12
1913.....	22.32	5.33	119	5.39	5.33	120	5.45	5.45	122	5.52	5.45	123	5.58	5.52	125	5.64	5.58	126	5.70	5.64	127	5.75	5.70	128
1914.....	16	5.26	01	5.33	5.26	01	5.39	5.39	01	5.45	5.39	01	5.52	5.45	01	5.58	5.52	01	5.64	5.58	01	5.70	5.64	01
1915.....	3.10	5.20	16	5.26	5.20	16	5.33	5.26	17	5.39	5.33	17	5.45	5.39	17	5.52	5.45	17	5.58	5.52	17	5.64	5.58	17
1916.....	4.85	7.96	39	5.20	5.20	25	5.26	5.33	26	5.33	5.33	26	5.39	5.39	26	5.45	5.45	26	5.52	5.52	27	5.58	5.58	27
1917.....	15	7.72	01	7.96	7.96	01	5.20	5.26	01	5.26	5.33	01	5.33	5.39	01	5.39	5.45	01	5.45	5.52	01	5.52	5.58	01
1918.....	8.50	7.50	64	7.72	7.72	66	7.96	5.20	68	5.20	5.26	44	5.26	5.33	45	5.33	5.39	45	5.39	5.45	46	5.45	5.52	46
1919.....	70.55	7.28	514	7.50	7.50	529	7.72	7.96	545	7.96	7.96	562	5.26	5.33	567	5.33	5.39	571	5.39	5.45	576	5.45	5.52	576
1920.....	100.05	7.07	707	7.28	7.28	728	7.50	7.72	750	7.72	7.96	772	7.96	7.96	796	7.96	7.96	796	7.96	7.96	84	5.20	5.52	84
1921.....	37.25	6.86	256	7.07	7.07	263	7.28	7.28	271	7.28	7.28	279	7.28	7.28	288	7.28	7.28	297	5.20	5.20	194	5.26	5.52	196
1922.....	10.60	6.66	71	6.86	6.86	73	7.07	7.28	75	7.28	7.28	77	7.28	7.28	79	7.28	7.28	82	7.96	7.96	84	5.20	5.52	84
1923.....	24.46	6.47	158	6.66	6.66	163	6.86	7.07	168	7.07	7.28	173	7.28	7.28	178	7.28	7.28	183	7.72	7.72	112	7.96	7.96	115
1924.....	127.52	6.28	801	6.47	6.47	825	6.66	6.66	849	6.66	6.66	875	6.66	6.66	902	6.66	6.66	928	7.50	7.50	956	7.72	7.96	984
1925.....	45.82	6.10	280	6.28	6.28	288	6.47	6.66	296	6.66	6.66	305	6.66	6.66	314	6.66	6.66	324	7.28	7.28	334	7.50	7.72	344
1926.....	96.33	5.92	570	6.10	6.10	588	6.28	6.47	605	6.47	6.66	623	6.66	6.66	642	6.66	6.66	661	7.07	7.07	686	7.28	7.50	701
1927.....	44.80	5.75	258	5.92	5.92	265	6.10	6.28	273	6.28	6.28	281	6.48	6.48	290	6.66	6.66	299	6.86	6.86	307	7.07	7.28	317
1928.....	181.98	5.58	1015	5.75	5.75	1046	5.92	6.10	1077	6.10	6.10	1110	6.28	6.28	1143	6.47	6.47	1177	6.66	6.66	1212	6.86	7.07	1248
1929.....	354.56	5.42	1922	5.58	5.58	1978	5.75	5.92	2039	5.92	5.92	2099	6.10	6.10	2163	6.28	6.28	2227	6.47	6.47	2294	6.66	6.86	2361
1930.....	266.81	5.26	1403	5.42	5.42	1446	5.58	5.75	1489	5.75	5.75	1534	5.92	5.92	1580	6.10	6.10	1628	6.28	6.28	1676	6.47	6.66	1726
1931.....	57.28	5.11	293	5.26	5.26	301	5.42	5.58	310	5.58	5.58	320	5.75	5.75	329	5.92	5.92	339	6.10	6.10	349	6.28	6.47	360
1932.....	98.52	4.96	489	5.11	5.11	503	5.26	5.42	518	5.42	5.42	534	5.58	5.58	550	5.75	5.75	566	5.92	5.92	583	6.10	6.28	601
Miles 3 in. equivalent.			90.58			93.07			95.83			98.40			99.21			103.02			99.90			102.32
Percent of total.....			5.77			5.93			6.10			6.27			6.32			6.56			6.36			6.52

Column A—Miles of Field and Well Line Pipe (1,570.34 Miles Equivalent 3 Inch).
 Column B—Annual Renewal Rate from Distribution Curve II, Including Replacements of Replacements.
 Column C—Calculated Annual Renewals.

Defendant's Exhibit No. 42—Continued

[fol. 9452]

Table VIII-A

Tabulation Showing Adjusted Annual Reserve Accruals—Field Lines
and Well Line

Year	A	B	C	D	E	F
1934.....	.43	.557	3.65	2.993	.99	4.540
1935.....	.53	.686	3.76	3.083	.99	4.759
1936.....	.66	.855	3.87	3.173	.99	5.018
1937.....	.80	1.036	3.99	3.272	.99	5.298
1938.....	.96	1.243	4.11	3.370	.99	5.603
1939.....	1.15	1.489	4.23	3.469	.99	5.948
1940.....	1.39	1.800	4.36	3.575	.99	6.365
1941.....	1.66	2.150	4.49	3.682	.99	6.822
1942.....	1.98	2.564	4.62	3.788	.99	7.342
1943.....	2.32	3.004	4.78	3.903	.99	7.897
1944.....	2.65	3.432	4.90	4.018	.99	8.440
1945.....	3.01	3.898	5.03	4.125	.99	9.013
1946.....	3.40	4.403	5.18	4.248	.99	9.641
1947.....	3.83	4.960	5.33	4.371	.99	10.321
1948.....	4.21	5.452	5.45	4.469	.99	10.911
1949.....	4.56	5.905	5.61	4.600	...	10.505
1950.....	4.96	6.423	5.77	4.731	...	11.154
1951.....	5.40	6.993	5.93	4.863	...	11.856
1952.....	5.80	7.511	6.10	5.002	...	12.513
1953.....	6.02	7.796	6.27	5.141	...	12.937
1954.....	6.05	7.835	6.32	5.182	...	13.017
1955.....	5.96	7.718	6.56	5.379	...	13.097

Column A—Annual Renewal Rates from Mortality Curve I.

Column B—Column A Times Factor .99 x 1.308 = 1.295.

Column C—Annual Renewal Rates from Mortality Curve III.

Column D—Column C Times Factor .82.

Column E—Decline in Per cent of New Condition Times Factor .99.

Column F—Sum of Columns B, D and E—Annual Reserve Accruals Adjusted for:

1. Salvable Value of Materials Recovered.
2. Excess Cost of Piece-meal Replacements.

Defendant's Exhibit No. 42—Continued

[fols. 9453-9454]

Table IX-A

Tabulation Showing Cumulative Credit Balance by Years—1934-1963

Growing Out of Application of Uniform Annual Rate of 8.60 Per Cent

Year	A	B	C	D	E
1934.....	8.600	4.540	4.060	.....	4.060
1935.....	8.600	4.759	3.841	.203	8.104
1936.....	8.600	5.018	3.592	.405	12.091
1937.....	8.600	5.298	3.302	.605	15.998
1938.....	8.600	5.603	2.997	.800	19.795
1939.....	8.600	5.948	2.652	.990	23.437
1940.....	8.600	6.365	2.235	1.172	26.844
1941.....	8.600	6.822	1.778	1.342	29.964
1942.....	8.600	7.342	1.258	1.498	32.720
1943.....	8.600	7.897	.703	1.636	35.059
1944.....	8.600	8.440	.150	1.753	36.972
1945.....	8.600	9.013	- .413	1.849	38.408
1946.....	8.600	9.641	-1.041	1.920	39.287
1947.....	8.600	10.321	-1.721	1.964	39.530
1948.....	8.600	10.911	-2.311	1.977	39.196
1949.....	8.600	10.505	-1.905	1.960	39.251
1950.....	8.600	11.154	-2.554	1.963	38.660
1951.....	8.600	11.856	-3.256	1.933	37.337
1952.....	8.600	12.513	-3.913	1.867	35.291
1953.....	8.600	12.937	-4.337	1.765	32.719
1954.....	8.600	13.017	-4.417	1.636	29.938
1955.....	8.600	13.097	-4.497	1.497	26.938
1956.....	8.600	12.715	-4.115	1.347	24.170
1957.....	8.600	12.417	-3.817	1.209	21.562
1958.....	8.600	11.931	-3.331	1.078	19.309
1959.....	8.600	11.235	-2.635	.965	17.639
1960.....	8.600	10.705	-2.105	.882	16.416
1961.....	8.600	10.218	-1.618	.821	15.619
1962.....	8.600	9.920	-1.320	.781	15.080
1963.....	8.600	10.100*	-1.500	.754	14.334

* Limit of Annual Rates.

Column A—Adopted Uniform Annual Reserve Accrual.

Column B—Calculated Annual Charges—Per Cent of Reproduction Cost New—Field Lines and Well Lines.

Column C—Balance.

Column D—Interest on Cumulative Balance at 5 Per cent.

Column E—Cumulative Credit Balance Including Interest.

[fols. 9455-9462] Gas Well Construction and Equipment

[fol. 9463] Method of Annual Reserve Calculation—Gas Well Construction and Equipment

In the preceding discussion, consideration has been given to some of the difficulties encountered when an attempt is made to anticipate the mortality of existing gas wells and to estimate the probable rate of failure and abandonment.

of wells to be drilled in the future, whether drilled in developed or in unproven areas.

A brief analysis has also been made of some of the factors that control the functions of reserve accruals designed to offset the decline in rated capacity and to provide for the ultimate loss of a group of producing gas wells. In this analysis, it was shown that, considered primarily as a group of units of physical property, a given number of wells might remain in service over a given number of years without the failure of any individual well during this interval. It was also shown if such a condition did exist, a diminution of ratable capacity per well would inevitably take place during the interval and that the rate of this diminution in ratable service capacity would be controlled by the rate of gas withdrawals rather than by the passage of time.

If the capital outlay involved in that part of the property of Lone Star Gas Company required to bring its gas reserves into possession is to be recovered by means of a reserve accrual, it is obvious that this reserve accrual in the aggregate should have a definite relation to the total volume of gas that may be brought into possession by means of the facilities provided for recovery. If the unit of production is M cubic feet of gas, it follows that the loss created by the withdrawal of a unit of production will be the reproduction cost of gas well construction and equipment [fol. 9464] of an individual well, divided by the total volume of recoverable gas expressed in terms of M cubic feet of gas that may ultimately be produced by this well. If the reproduction cost of gas well construction and equipment is a known factor and the volume of gas which can be recovered by means of the well and equipment can be estimated with comparative accuracy, then the simple mathematical process above outlined will fix the unit accrual rate in terms of cents per M cubic feet of gas that will be ultimately produced.

What has been said with reference to an individual well is equally applicable to a group of wells, and if similar determinations are made with reference to cost and expected recovery, a weighted accrual rate for the group expressed in terms of M cubic feet of withdrawals can be established:

In order to maintain the status quo of the ratable delivery capacity of gas wells owned and operated by Lone Star Gas Company and to deplete its developed reservoirs, the

group of wells in service as of January 1, 1933, must be supplemented by other wells with which to offset the inevitable decline which will take place in the ratable capacity of the wells in service as well as to permit complete depletion of the producing areas not fully developed at January 1, 1933. Normally, the first additional wells will be drilled in proven areas not fully developed. As the development of the present proven areas reaches saturation, the necessary supplementary drilling will be extended to other areas now classified as undeveloped. If the maintenance of the status quo alone is considered, this process will continue as a series of recurring cycles. If an increase in demand is considered, or if the demand remains constant, and if by reason of changed operating conditions the demand upon [fol. 9465] the production of company owned wells is increased, then in either case the processes of the cycle will be accelerated.

In the calculation of reserve accruals for any specific property, consideration must be given to the manner in which the operating charges of the company are handled and in the case of Gas Reserves and Gas Well Construction and Equipment, equal consideration must be given to the manner in which these property items have been treated in a reproduction cost estimate, or in the property base expressed in terms of dollars to which the accrual rates are to be applied.

In the reproduction cost estimate of the property and business of Lone Star Gas Company as of January 1, 1933, the gross value of the developed gas reserves of the company were determined upon the basis of the application of a determined unit value per M cubic feet to the volume of recoverable gas in the developed and defined reservoirs owned by the company. From this gross value there was deducted the reproduction cost now of all gas wells now owned and operated by the company together with the cost of all future drilling that will be required in the specific areas in order to secure a complete and ratable recovery from these reservoirs.

In order to make this evaluation of gas reserves, it was necessary, not only to determine the volumetric content of the reservoirs in M cubic feet of gas and the average unit value of gas after recovery, but it was also necessary to fix an average annual withdrawal rate for the purpose of

applying the proper discount factors to the unit value of the gas after it had been recovered.

[fol. 9466] It will be clear from this brief explanation that by the method of valuation adopted, there has been established a balanced relation between the gross value of the gas reserves owned by Lone Star Gas Company as of January 1, 1933, and the reproduction cost new of Gas Well Construction and Equipment as of that date as well as the cost of future drilling in the areas under consideration. The deduction of the full reproduction cost new of all gas wells now in service as well as the cost of future wells, from the gross value of the reservoirs, with no consideration given to the remaining life expectancy or potential production from any well requires that the amount thus deducted from the gross value of reserves be recovered during the period of depletion.

A careful determination has been made of the total delivery of gas in M cubic feet from all wells which have been attached to the system of Lone Star Gas Company, but which have been abandoned by reason of the practical exhaustion of their reservoirs. A careful determination has likewise been made of the recoverable gas in the gas reserves included in the reproduction cost estimate of property of the company as producing leaseholds. This determination has been made by Mr. F. E. Kendrick, Chief Geologist, Lone Star Gas Company, and Mr. J. H. Dunn, Production Engineer, Lone Star Gas Company. Mr. Dunn has also prepared a schedule of future drilling for the Shamrock, Leeray and Sipe Springs districts. All of this essential information has been available in connection with the preparation of this report.

The following schedule sets out the reproduction cost new of Gas Well Construction and Equipment in the various areas wherein Lone Star Gas Company owns gas reserves.

[fol. 9467]

Field	Cost per Well	Number of Wells	Total
Chickasha.....	\$16,380.45	43.00	\$704,359
Duncan.....	13,614.91	8.50	115,727
Fox (Loco).....	8,248.38	6.50	53,614
Panhandle (Shamrock).....	15,062.48	78.00	1,174,874
Petrolia.....	11,264.99	46.00	518,190
Cheaney.....	24,270.61	18.00	436,871
Leeray.....	30,991.21	42.19	1,307,442
Sipe Springs.....	22,359.99	8.00	178,880
Miscellaneous Wells.....	23,555.88	11.25	265,004
Total.....		261.44	\$4,754,961

The following schedule sets out the estimate of the recoverable reserves owned by Lone Star Gas Company in the various fields and the estimated number of additional wells that will be required to recover these reserves.

Field	Additional Wells	Estimated Cost	Reserves M. Cubic Feet
Chickasha.....	...	.....	1,877,000
Duncan.....	...	.....	461,000
Fox (Loco).....	...	.....	270,000
Miscellaneous (Oklahoma).....	...	.....	1,390,000
Panhandle (Shamrock).....	86	\$1,295,332	211,000,000
Petrolia.....	...	.....	1,877,000
Cheaney.....	...	.....	1,800,000
Leeray.....	36*	115,676	123,570,000
Sipe Springs.....	18	402,480	19,000,000
Miscellaneous (Texas).....	...	.....	5,300,000
Total.....	140	\$2,813,488	366,545,000

* Includes five wells now producing gas but not included in the current appraisal.

The reproduction cost of the present wells, \$4,754,961, together with the estimated cost of the future wells, \$2,813,488, indicates a total cost of \$7,568,459 for Gas Well Construction and Equipment required to recover 366,545,000 M cubic feet of gas.

The estimated unit cost of recovery is, therefore, \$.0206 per M cubic feet of gas produced.

[fol. 9468] In connection with the foregoing determination, the following comment is offered: the total estimated production per well including the estimated additional wells required for the future development of the present producing areas is approximately 913,000 M cubic feet per well. An analysis of the total production from 502 gas wells which have been attached to the system of Lone Star Gas Company but which have been abandoned by reason of the depletion of their respective reservoirs shows that the average total production from company owned wells has been 91,773 M. cubic feet, and that the average total production from other owned wells has been 180,079 M. cubic feet. The weighted total average production from all wells abandoned prior to January 1, 1933, has been 165,126 M. cubic feet. The basis of these calculations is set out in detail in the tabulations showing total deliveries of abandoned gas wells.

Mr. Dunn in his estimate of the number of wells that will be drilled in the future in the Sipe Springs, Leeray and Shamrock Districts has confined his estimate to the number

of wells required to conform to the lease obligations of the company and has given no consideration to an increase in the number of wells above this minimum that might be brought about by reason of future needed availability.

A primary function of a reserve accrual is the elimination of irregularities in current operation charges which will be caused by the variable rates of property, replacements and capital losses. In the case of an annual reserve accrual designed to provide for the uniform recovery of capital expenditures subject to the type of loss characteristic of the failure of gas wells, it is necessary to accrue [fol. 9469] this reserve at a uniform rate determined by the average rate of delivery over a period of years during which a rational estimate of average deliveries can be made.

As of January 1, 1933, the wells owned and operated by Lone Star Gas Company furnished approximately forty-two per cent of the potential capacity of all natural gas wells attached to the system. This ratio of potential delivery capacity of company owned wells has constantly increased since the Petrolia Field ceased to be a material factor as a source of supply and every known factor indicates that this ratio will continue to increase in the future.

The tabulation showing the number of company owned wells and the relation of gas produced from company owned wells to the amount of gas purchased from 1917 to 1932 inclusive clearly indicates the trend towards a higher ratio of gas produced to gas purchased.

An analysis of the facts disclosed by the tabulation gives a complete insight into the various phases of the development of the present gas supply of Lone Star Gas Company and an appreciation of the effect of the changes that have taken place in this phase of the company's operations since 1917. During the year 1917, 90 per cent of the total gas purchased and produced came from the production of company wells in the Petrolia Field. The rapid decline of this source of supply during the years immediately following 1917 and the effect of the attachment of independent gas production in Southern Oklahoma in 1918 is indicated by the rapid decline in per cent of gas produced and the corresponding increase in the percentage of gas purchased during the years 1918, 1919, 1920, 1921 and 1922.

During the year 1925, the volume of residue gas secured [fol. 9470] from casing head gasoline plants first became

an important factor as a source of supply and during that year the percentage of gas produced reached the minimum figure of 8.93 per cent of the total gas.

After the marked decline of the Petrolia Field and until the beginning of the year 1928, the production from company owned wells was relatively small compared to the production from casing head plants and other owned natural gas wells. During 1927, the production of the company was largely drawn from the depleted reserves of the Petrolia area and the Loco, Duncan and Walters Districts in Southern Oklahoma. During the latter part of 1927, the company began an active program of gas development together with the purchase of producing gas wells which has resulted in the situation with reference to potential production from company owned wells that exists as of this date. The increase in the number of company owned wells exclusive of Petrolia, from 45 in 1927 to 222 in 1933, is not fully indicative of the increased capacity of company owned wells. The total open flow of company owned wells in 1927 was 159,777 M. cubic feet. In 1932 the total open flow of company owned wells was 2,433,983 M. cubic feet—an increase of 1500 per cent.

The full effect of the normal increase in the ratio of produced gas to purchased gas is not reflected in the tabulation. It will be noted that there has been a decline of approximately 10,000,000 M. cubic feet in total deliveries from 1929 to 1933 due largely to a corresponding decline in industrial gas sales. It has been the policy of Lone Star Gas Company to secure its base load requirements from casing head plants for the reason that if this gas is not currently utilized, it will otherwise be wasted. Due to this fact, the decline in the amount of gas secured from casing head [fol. 9471] plants reflects a decline in potential deliveries from this source rather than a proportionate decline in deliveries due to a decline in market requirements. The history of casing head plants as a potential source of supply will be discussed in detail.

In addition to the increase in capacity to deliver previously discussed, certain other factors will have a direct bearing upon the future increase in the proportionate amount of total deliveries secured from company owned wells.

Incidental production of gas developed in connection with the exploration for oil has in the past been the most fruitful source of independent gas production. Practically every area now reached by the gathering system of Lone Star Gas Company is practically devoid of any prospects in profitable future oil production. Inasmuch as natural gas production per se cannot support wild cat operations on the part of independent producers, the practical elimination of prospective oil production in the areas reached by Lone Star Gas Company will sharply restrict independent wild catting for oil production and will correspondingly reduce the volume of gas available for purchase during future years.

Another important factor will also tend to increase the proportionate amount of the total market requirements that will be furnished by company owned wells. As indicated by the tabulation, the production of casing head gas in West Texas has, since 1924 furnished Lone Star Gas Company with a substantial part of its base load requirements. The general condition of the oil and gasoline markets has practically stopped any additional development for the production of gasoline from casing head gas in the areas reached by Lone Star Gas Company and there has been a steady [fol. 9472] decline in the potential deliveries from this source. The supply of casing head gas which has provided an annual average of approximately 15,000,000 M. cubic feet of purchased gas will soon cease to be a material factor with reference to the base supply of gas.

The history of the delivery of residue gas to Lone Star Gas Company from casing head gasoline plants is shown in two tabulations: Tabulation Showing Detail of Casing Head Gas Purchased by Years in M. Cubic Feet and Tabulation Showing Decline in Production of Casing Head Gas Major Sources of Supply Lone Star Gas Company.

While the detail tabulation of total deliveries shows a decline from a maximum production in 1927 of 17,641,453 M. cubic feet to 10,324,783 M. cubic feet in 1932, this indicated decline does not reflect the actual rate of decline in potential deliveries from this source due to the fact that additional plants have been attached during various years from 1924 to 1932. The second tabulation clearly sets out the actual potential decline that has taken place in the major sources of supply that have been in service continuously

since 1924. The relative annual deliveries from these sources, which have furnished the major portion of all residue gas purchased, have declined from 100 per cent (maximum delivery) in 1925 to 30.9 per cent in 1932.

A further study of the rate of decline in the potential delivery capacity of the sources of supply of casing head gas available to the various plants now connected to the system of Lone Star Gas Company is now being made by Mr. J. H. Dunn. The final results of this investigation are not available at this time, but sufficient progress has been made to indicate that the rate of decline indicated by the figures used herein are indicative of the rate of decline [fol. 9473] of casing head gas as a future source of supply for Lone Star Gas Company.

In addition to an increase in the ratio of the total market requirements that company owned wells will be called upon to produce by reason of the cumulative effect of the factors previously discussed, there will be a normal increase in the total market requirements due in part to the growth of the market and in part to some revival in general business conditions. Any horizontal increase in market requirements will also be reflected correspondingly in the volume of gas to be supplied by means of company owned wells.

It is impossible to make an exact estimate of the proportional part of the total deliveries that will in the future be supplied by means of the gas wells included in this estimate and the cost of which must be recovered by means of the reserve accrual set up. It is not difficult, however, in view of the information contained in the available data, to fix an average annual rate of future delivery which will be clearly within the limits of probable future results. This average annual rate of future deliveries has been fixed at 20,000,000 M. cubic feet. This rate of delivery contemplates the practical depletion of developed gas reserves of Lone Star Gas Company as of January 1, 1933, over a period of approximately nineteen years.

The estimated average annual sum required to recover the cost of gas well construction and equipment necessary for the ratable depletion of the developed reserves of Lone Star Gas Company as of January 1, 1933 is, therefore, \$.0206 (estimated unit loss per M. cubic feet of gas produced) times 20,000,000 cubic feet (average annual with-

drawals—company owned wells on present producing areas) or \$412,000.

[fol. 9474] Decline in Per Cent of New Condition

The average annual decline in per cent of new condition found by inspection to be applicable to the physical property of Lone Star Gas Company was approximately one per cent per annum of weighted age. Included in the property to which this decline in per cent of new condition applied was \$3,894,317 for the direct physical costs of Gas well construction and equipment in service as of January 1, 1933. This rate of decline in per cent of new condition (as applied to the property in service as of January 1, 1933, without consideration of the effect of future capital additions) will continue until a static per cent of new condition is reached. The provision for this loss as applied to gas well construction and equipment will require an annual accrual of \$38,943 for a period of approximately fifteen years following January 1, 1932.

Effect of Salvable Value of Equipment

The calculations from which the per cent of value lost on the abandonment of gas wells has been determined is shown in the tabulation—Determination of Salvable Value—Gas Well Construction and Equipment. As shown in this tabulation, which is based upon the experience of Lone Star Gas Company in the matter of the various items of construction costs as well as in the matter of the percentage of materials recovered on well abandonment, the loss on abandonment without consideration of the loss in value of the recovered materials, is 84.5 per cent of the direct structural costs. Included in the deductions from the gross value of gas reserves for the cost of gas well construction and equipment required for recovery was an item of 22.1 per cent of direct structural costs to cover General or Undistributed Costs. All general costs will be necessarily lost [fol. 9475] on abandonment. An adjustment for this fact places the per cent of loss on abandonment at 87.29 per cent of the total installed cost including general costs.

The estimated proportion of the total cost of gas well construction and equipment as shown in the tabulation, together with an allowance of 22.1 per cent for General Costs, represented by the gross value of the casing and

fittings recovered was found to be 18.41 per cent. The decline in worth of this equipment upon final recovery will not be less than 33.3 per cent of value new, or an additional loss of 6.14 per cent expressed as a percentage of total installed cost. This additional loss due to the final condition of recovered material when added to the estimated loss of 87.29 per cent results in a total estimated loss of 93.43 per cent of the total installed cost of Gas Well Construction and Equipment.

Conclusion

The final determination of the annual reserve accrual required for Gas Well Construction and Equipment may be summarized as follows:

Annual allowance for recovery of Physical Property and General Costs $\$.0206 \times 20,000,000$	\$412,000
Annual allowance for decline in per cent of new condition	38,943
Total Annual Allowance	\$450,943
Estimated percentage of total cost lost	93.43
Net Calculated Annual Reserve Accrual	\$421,316

The method of calculation which has resulted in the estimated annual reserve accrual required for gas well construction and equipment shown in the above summary develops an annual sum for the accrual substantially less than would have been developed had gas wells been treated from [fols. 9476-9479] the standpoint of items of physical property and the mortality experience of gas wells been applied.

In the foregoing calculations, however, the obvious inconsistencies and the innumerable uncertainties that would necessarily have entered into any calculation based upon the average life of gas wells have been largely eliminated.

The number of wells in service as of January 1, 1933, was a matter of exact determination. The reproduction cost of these wells including general costs has been estimated in a manner which precludes the possibility of any material error finding its way into the estimate. The reserve calculations have been carefully made and have been based upon an accumulation and an assimilation of data which are complete and reliable. If there has been an over estimate of the recoverable reserves, this error has resulted in a

reduction in the estimated annual accrual rate. The number of future wells required for recovery has been based upon the leasehold obligations of Lone Star Gas Company rather than upon a consideration of these obligations, together with additional drilling that future needed availability may require and to this extent the estimate is of necessity a conservative one. The estimated future average annual production from company owned wells, while not based upon data as exact in character as those which controlled the other phases of the estimate, was nevertheless based upon a careful study of the effect of every factor that will have a bearing upon the future ratio of purchased and produced gas.

* * * * *

Defendant's Exhibit No. 42—Continued

Tabulation Showing

Company Owned Wells and Relation of Gas Produced to Gas Purchased—1917-1932

Year	Number of Wells*	Gas Produced M. Cubic Ft.**	Per cent of Total	Purchased Casing Head Gas M. Cu. Ft.	Per cent of Total	Gas Purchased M. Cubic Ft.	Other Purchased M. Cubic Ft.	Per cent of Total	Total Gas M. Cubic Ft.
1917	..	7,605,761	89.90	..	..	854,345	..	10.10	8,460,106
1918	..	5,579,148	32.21	..	..	11,741,051	..	67.79	17,320,199
1919	3	3,036,385	18.06	..	..	13,772,373	..	81.94	16,808,758
1920	44	4,488,336	40.53	..	..	6,585,609	..	59.47	11,073,945
1921	55	2,640,048	29.01	..	..	6,461,321	..	70.99	9,101,369
1922	62	3,581,676	18.21	..	..	16,084,073	..	81.79	18,665,749
1923	65	3,959,067	19.12	186,682	90	16,559,824	..	79.98	20,705,573
1924	57	3,769,945	13.74	11,699,183	42.64	11,969,857	..	43.62	27,438,985
1925	51	2,907,474	8.93	15,532,150	47.71	14,115,755	..	43.36	32,555,379
1926	44	4,740,107	12.96	17,181,128	46.98	14,649,961	..	40.06	36,571,196
1927	45	5,908,469	15.82	17,641,453	47.23	13,800,764	..	36.95	37,350,686
1928	59	6,662,952	18.74	14,445,444	40.62	14,453,450	..	40.64	35,561,846
1929	120	8,718,164	21.33	12,724,102	31.12	19,436,458	..	47.55	40,878,724
1930	167	10,188,345	26.16	13,107,607	33.66	15,648,059	..	40.18	38,944,011
1931	174	8,837,447	27.74	10,995,140	34.52	12,022,034	..	37.74	31,854,621
1932	222	9,075,842	29.96	10,324,783	34.09	10,890,392	..	35.95	30,291,017

* Exclusive of Petrolia.

** Includes Petrolia Field and Joshua Station Deliveries.

All Data from Records of Gas Measurement Department—Lone Star Gas Company.

[fol. 9485] Reserve Accrual for Gas Well Construction and Equipment Based on Mortality Data for Gas Wells

No report of this character would be complete unless it contained in summary form at least the available historical data relative to the actual mortalities of gas wells. The historical data herein contained permits the complete analysis of the performance to date of more than 500 producing gas wells now attached to the system of Lone Star Gas Company and the complete mortality experience of more than 500 wells that have been abandoned by reason of the practical exhaustion of their respective reservoirs. The essential facts that may be developed from a detailed study of these data have been reduced to condensed tabulations and graphic charts.

The basic historical data consist of the following tabulations:

Producing Wells—Classified by Fields, Company Owned and Other Owned Wells—531 Wells:

1. Meter Number.
2. Owner.
3. Farm Name.
4. Date Connected.
5. Years and Months in Service to Date.
6. Total Delivery to Date.
7. Original Rock Pressure.
8. Original Open Flow.
9. Present Rock Pressure.
10. Present Open Flow.

Abandoned Wells—Classified by Fields, Company Owned and Other Owned Wells—512 Wells:

1. Meter Number.
2. Owner.
3. Farm Name.
4. Date Connected.
5. Date Abandoned.
6. Years and Months in Service.
7. Total Delivery.

For reasons heretofore discussed, wells drilled in the Petrolia Field were eliminated from the studies.

[fol. 9486] From these basic historical data the following tabulations have been prepared and included in the report.

1. Table of Mortality Data 512 Abandoned Gas Wells, Texas and Oklahoma, Exclusive of Petrolia Field.

2. Condensed Mortality History of 512 Abandoned Gas Wells That Have Been Connected to Lone Star Gas Company System, Exclusive of Petrolia Field.

3. Summary of Total Average Deliveries of Abandoned Gas Wells that have Served the System of Lone Star Gas Company—Purchased and Produced.

4. Tabulations Showing Total Deliveries of Abandoned Gas Wells That Have Served the System of Lone Star Gas Company—Purchased and Produced.

5. Tabulation Showing Weighted Age of Gas Wells Now Serving the System of Lone Star Gas Company—Exclusive of Petrolia Field.

6. Tabulation Showing Weighted Age of Abandoned Gas Wells Having Served Lone Star Gas Company, Exclusive of Petrolia Field, Assuming all Abandoned Wells Now in Service.

7. Tabulation Showing Weighted Age of All Wells Having Served or Now Serving the System of Lone Star Gas Company—Exclusive of Petrolia Field, Assuming all Wells now in Service.

8. Condensed Mortality History of 1001 Gas Wells Through One Complete Life Cycle, All Wells Connected Since 1918, Exclusive of Petrolia Field.

From the information developed in these tabulations, Mortality Curves have been prepared which indicate the mortality characteristics of abandoned wells and the mortality characteristics of all wells connected since 1913.

The following summary sets out the essential facts shown by each of the tabulations.

The table of mortality data of 512 abandoned gas wells and the condensed mortality history of these same wells clearly indicate the extremely high mortality experience of natural gas wells in Southern Oklahoma and North Central Texas. Of the 512 wells abandoned, 50.6 per cent were abandoned after a service life of twenty-one months or less

[fol. 9487] and 75.6 per cent were abandoned after a service life of forty-one months or less. This extremely high rate of mortality is not indicative of the average well performance for the reason that abandoned wells only have been considered in the study. It nevertheless gives an insight into general characteristics of gas wells drilled in this section of the Mid-Continent Area.

The tabulations showing the total deliveries from abandoned gas wells have been commented upon in a preceding section of the report. The relatively small deliveries from these wells is in conformity with the facts developed relative to the high mortality rate of the same wells. As shown by the tabulations, the weighted average delivery from the abandoned wells was only 165,126 cubic feet. If the average cost of these wells was \$20,000, the average cost for gas well construction and equipment without consideration of fixed charges during the period of depletion was in excess of \$.12 per M. cubic feet produced. It is interesting to compare this unit cost of production with the unit cost of \$.0206 used as the basis for the calculation of reserve accruals in the preceding section of this report.

The tabulation which sets out the weighted age of the wells now serving Lone Star Gas Company (exclusive of the Petrolia Field) shows that the two oldest wells now in service have had a service life of thirteen years and that only eighteen wells out of 531 have been in service eleven years. The weighted age of all wells now in service is approximately four years.

The tabulation which sets out the weighted age of the abandoned wells, wherein it is assumed that each of these wells is still in service, is of extreme interest in that it develops the fact that if each of the wells that have been abandoned were still in service, the weighted age of this group would be only 8.87 years.

The tabulation which sets out the weighted age of all wells in service and abandoned is a composite study based upon the two preceding tabulations. In this tabulation it is also assumed that all wells which have been abandoned are still in service and under this assumption, the weighted age of the entire group, 1043 in number, is 6.38 years.

The tabulation which sets out the condensed mortality history of 1001 gas wells through one complete life cycle is the most important in the group for the reason that it affords

the basis for the preparation of a true mortality curve for gas wells in Southern Oklahoma and North Central Texas.

This tabulation shows the percentages of failure to date for the group of wells attached to the System of Lone Star Gas Company during each year from 1919 to 1932, inclusive. The year 1919 was selected as the initial year for the reason that the percentage of mortality for wells attached prior to 1920 has been 100 per cent.

The mortality curve derived from the tabulation is shown in graphic form in Lone Star Gas Company Depreciation Analysis—Mortality Curves for Gas Wells. From the mortality curve a distribution curve of annual replacements of original wells has also been developed and from this basic distribution curve, the necessary calculations have been made giving effect to replacements of original wells and replacements of replacements over two complete life cycles. In the calculations it was assumed that the replacements of original wells would have the same mortality characteristics as those of the original group.

[fol. 9489] The following tabulation sets out the calculated annual rates of replacements for various service years for gas wells as developed from the distribution curve of replacements of original wells and replacements of replacements.

Service Years	Calculated Annual Replacement Rates
1	.00
2	5.25
3	7.03
4	8.72
5	10.85
6	12.97
7	16.09
8	17.09
9	16.28
10	15.68
11	14.99
12	15.39
13	16.40
14	16.53
15	15.41

Service Years	Calculated Annual Replacement Rates
16	14.93
17	15.22
18	15.44
19	15.61
20	15.71
21	15.69
22	15.60
23	15.54
24	15.53
25	15.55
26	15.58
27	15.58
28	15.55
29	15.55

The weighted age of the wells now in service, as previously shown, is approximately four years. The average annual replacement rate for the twenty-five year period following the fourth service year is 15.4 per cent.

From a previous analysis of the cost of gas well abandonment it was determined that 84.5 per cent of the total installed cost of the wells would be lost on abandonment without consideration of any decline in worth of the salvable material. The estimated proportion of the total physical cost of gas well construction and equipment represented by the gross value of casing and fittings recovered was 22.50 per cent. The decline in worth of the equipment upon abandonment would not be less than 33.3 per cent of value new, or a loss of 7.50 per cent of the total installed cost of the physical property. The total loss on recovery would, therefore, be 92.0 per cent of the total installed cost. This percentage (92 per cent) applied to the average annual replacement rate (15.40 per cent) results in an annual rate of 14.17 per cent applicable to the reproduction cost of gas well construction and equipment.

The reproduction cost of the direct physical elements of gas well construction and equipment owned and operated by Lone Star Gas Company as of January 1, 1933, was \$3,908,424. The application of the indicated annual rate of reserve accrual to this sum results in an estimated annual accrual of \$553,824. This estimate has been based upon an

exact analysis of the most complete mortality data of gas wells drilled in the territory in which Lone Star Gas Company operates that have been compiled up to this time.

It is difficult to determine to what extent the accrual of annual reserves provide for the replacement of gas well construction and equipment should be based upon calculated annual rates developed from the Mortality Curve. The basic data from which the slope of the curve was determined was complete and included the history of the behavior of more than one thousand wells over a period of fourteen years.

It is seldom possible to secure a more complete background for the calculations of future rates of mortality than has been afforded by this study. Despite this fact, consideration must be given to certain factors that are applicable to gas wells and that are not applicable to other types of property units subject to periodic replacements. In practically all mortality calculations, the element of time is a basic factor. Time or service years is the ab-cissa of the rectangular co-ordinates that determine the slope of any mortality curve wherein the rate of replacement is a function of the passage of time. As has been previously set out the life of a gas well is primarily dependent upon the rate of gas withdrawals and is not primarily dependent upon the passage of time. It is also true in the calculation of future replacement rates that it is the usual practice to assume that the performance of replacements will correspond to the performance of the units replaced. In the case of most items of physical property, this assumption is basically sound. In the case of gas wells, however, the life of wells drilled in the future will be determined by the reservoir content and the rate of withdrawals and for this reason it is difficult, if not impossible, to anticipate the performance of future wells that may be drilled in widely scattered areas and from which varying rates of withdrawals will be made.

In this specific case it might be suggested the mortality data do not give the proper relative weight to the wells drilled in the Wheeler County district and to wells that will be drilled in this district in the future. An inspection of the tabulation upon which the mortality curve has been based discloses the fact that the slope of the curve is clearly indicated during the first five service years (1932-1928)

during which period a substantial number of the Wheeler County wells were attached. It is also true that future wells will not be confined to the Wheeler County District and no other rational assumption can be made than that the performance of wells drilled in other areas will conform in a general way to the performance of wells that have been drilled in the past in the same general territory.

The average life of gas wells indicated by the mortality curve is slightly in excess of 6 service years. There is no historical data available which would lead to a conclusion that the average life of a group of gas wells in this section of the Mid-continent Area will exceed six years. As previously stated, this indicated average life of gas wells based upon historical mortality data will result in a substantially higher annual reserve accrual than that determined by the application of an estimated average annual withdrawal rate to the unit cost per M. cubic feet of gas withdrawn. The behavior of the mortality curve eliminates the use of any type of reserve accrual based upon the sinking fund method.

[fol. 9498]

Tabulation Showing
Weighted Age of Gas Wells Now Serving
The System of Lone Star Gas Company, Exclusive of Petrolia Field
July 1, 1933

Year Connected	Number of Wells	Percent of Total	Service Years	Weighted Age
1920.....	2	.38	13.00	.0494
1921.....	5	.94	12.00	.1128
1922.....	11	2.07	11.00	.2277
1923.....	13	2.45	10.00	.2450
1924.....	13	2.45	9.00	.2205
1925.....	12	2.26	8.00	.1808
1926.....	22	4.14	7.00	.2898
1927.....	38	7.16	6.00	.4296
1928.....	50	9.42	5.00	.4710
1929.....	82	15.44	4.00	.6176
1930.....	124	23.35	3.00	.7005
1931.....	99	18.64	2.00	.3728
1932.....	23	4.33	1.00	.0433
1933.....	37	6.97	.25	.0174
Total.....	531	100.00		3.9782

Defendant's Exhibit No. 42—Continued

[fol. 9499]

Tabulation Showing

Weighted Age of Abandoned Gas Wells that Have Served the System
of Lone Star Gas Company, Assuming All Wells Are Now in Service,

Exclusive of Petrolia Field

July 1, 1933

Year Connected	Number of Wells	Percent of Total	Service Years	Weighted Age
1918.....	5	.98	15.0	.1470
1919.....	7	1.37	14.0	.1918
1920.....	8	1.56	13.0	.2028
1921.....	80	15.63	12.0	1.8756
1922.....	89	17.38	11.0	1.9118
1923.....	79	15.43	10.0	1.5430
1924.....	54	10.55	9.0	.9495
1925.....	42	8.20	8.0	.6560
1926.....	24	4.69	7.0	.3283
1927.....	40	7.81	6.0	.4686
1928.....	29	5.66	5.0	.2830
1929.....	18	3.51	4.0	.1404
1930.....	17	3.32	3.0	.0996
1931.....	17	3.32	2.0	.0664
1932.....	3	.59	1.0	.0059
Total.....	512	100.00		8.8697

[fols. 9500-9502]

Tabulation Showing

Weighted Age of All Wells Having Served or Now Serving the System
of Lone Star Gas Company, Assuming All Wells Are Now in Service,

Exclusive of Petrolia Field

July 1, 1933

Year Connected	Number of Wells	Percent of Total	Service Years	Weighted Age
1918.....	5	.48	15.00	.0720
1919.....	7	.67	14.00	.0938
1920.....	10	.96	13.00	.1248
1921.....	85	8.15	12.00	.9780
1922.....	100	9.59	11.00	1.0549
1923.....	92	8.82	10.00	.8820
1924.....	67	6.42	9.00	.5778
1925.....	54	5.18	8.00	.4144
1926.....	46	4.41	7.00	.3087
1927.....	78	7.48	6.00	.4488
1928.....	79	7.57	5.00	.3785
1929.....	100	9.59	4.00	.3836
1930.....	141	13.52	3.00	.4056
1931.....	116	11.12	2.00	.2224
1932.....	26	2.49	1.00	.0249
1933.....	37	3.55	.25	.0089
Total.....	1,043	100.00		6.3791

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Defendant's Exhibit No. 42—Continued

[fols. 9503-9504]

Calculation of Total Annual Replacement Rates

Gas Well Construction and Equipment—From Mortality Curves

Total Annual Replacements % Year.....	5.2500 2nd	7.0256 3rd	8.7232 4th	10.8522 5th	12.9693 6th	16.0931 7th	17.0919 8th	16.2787 9th	15.6791 10th	14.9935 11th	15.3875 12th	16.4029 13th	16.5344 14th	15.4062 15th
Total Annual Replacements % Year.....	14.9317 16th	15.2228 17th	15.4350 18th	15.6105 19th	15.7078 20th	15.6862 21st	15.6003 22nd	15.5370 23rd	15.5253 24th	15.5547 25th	15.5836 26th	15.5768 27th	15.5542 28th	15.5475 29th
Year	Replacements of Original Wells %													
1														
2	5.25													
3	6.75	.2756												
4	8.00	.3544	.3688											
5	9.50	.4200	.4742	.4580										
6	10.75	.4988	.5620	.5888	.5697									
7	12.75	.5644	.6674	.6979	.7325	.6809								
8	12.25	.6694	.7553	.8287	.8682	.8754	.8449							
9	9.75	.6431	.8958	.9377	1.0310	1.0375	1.0863	.8973						
10	7.50	.5119	.8606	1.1122	1.1666	1.2321	1.2874	1.1537	.8546					
11	5.25	.3938	.6850	1.0686	1.3837	1.3942	1.5288	1.3674	1.0988	.8232				
12	4.25	.2756	.5269	.8505	1.3294	1.6536	1.7300	1.6237	1.3023	1.0583	.7872			
13	4.00	.2231	.3688	.6542	1.0581	1.5887	2.0519	1.8374	1.5465	1.2543	1.0121	.8078		
14	3.00	.2100	.2986	.4580	.8139	1.2645	1.9714	2.1792	1.7499	1.4895	1.1995	1.0387	.8612	
15	1.00	.1575	.2810	.3707	.5697	.9727	1.5691	2.0938	2.0755	1.6855	1.4244	1.2310	1.1072	.8681
16	....	.0525	.2108	.3489	.4612	.6809	1.2070	1.6665	1.9941	1.9991	1.6118	1.4618	1.3122	1.1161
17	....	.7839	.0703	.2617	.4341	.5512	.8449	1.2819	1.5872	1.9207	1.9117	1.6542	1.5583	1.3228
18	....	1.0079	.7994	.0872	.3256	.5188	.6840	.8973	1.2209	1.5287	1.8367	1.9619	1.7633	1.5708
19	....	1.1949	1.0278	.8103	.1085	.3891	.6437	.7264	.8546	1.1759	1.4619	1.8850	2.0914	1.7774
20	....	1.4185	1.2181	1.0419	.8196	.1297	.4828	.6837	.6918	.8232	1.1245	1.5003	2.0094	2.1081
21	....	1.6052	1.4462	1.2348	1.0537	.8247	.1609	.5128	.6511	.6664	.7872	1.1541	1.5993	2.0255
22	....	1.9038	1.6365	1.4663	1.2488	1.0603	.8235	.1709	.4884	.6272	.6372	.8078	1.2302	1.6121
23	....	1.8291	1.9409	1.6593	1.4830	1.2566	1.0588	.8190	.1628	.4704	.5997	.6540	.8612	1.2401
24	....	1.4558	1.8648	1.9680	1.6781	1.4922	1.2549	1.0530	.8157	.1568	.4498	.6155	.6971	.8681
25	....	1.1199	1.4842	1.8908	1.9903	1.6886	1.4902	1.2480	1.0487	.8151	.1499	.4616	.6561	.7027
26	....	.7839	1.1417	1.5049	1.9123	2.0027	1.6863	1.4820	1.2430	1.0480	.8166	.1539	.4921	.6614
27	....	.6346	.7992	1.1576	1.5220	1.9242	2.0000	1.6770	1.4760	1.2420	1.0499	.8181	.1640	.4960
28	....	.5973	.6470	.8103	1.1708	1.5315	1.9216	1.9890	1.6702	1.4749	1.2444	1.0519	.8178	.1653
294480	.6089	.6560	.8196	1.1781	1.5294	1.9110	1.9810	1.6690	1.4777	1.2467	1.0514	.8166

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[fol. 9505] Compressor Stations

[fol. 9506] The reproduction cost of Compressor Station Land, Structures and Equipment owned and operated by Lone Star Gas Company used in the public service as of January 1, 1933, and included in the reproduction cost estimate as of that date prepared by Mr. P. McDonald Biddison, Mr. E. A. Steinberger and Mr. Ed. C. Connor, is made up of the reproduction cost of two distinct types or groups of compressor installations. The first group may be defined as those stations so located on the main transmission trunks of the system as to be generally independent of the life of one or more gas fields with reference to service life in situ. This group of stations is hereinafter designated Main Line Stations. The second group of stations may be defined as those stations so located with reference to the system as a whole as to be generally dependent with reference to service life in situ (in part or as a whole) upon the life of one or more adjacent gas fields. This group of stations is hereinafter designated Field Stations.

In view of these definitions and classifications, it is evident that the factors that control the reserve accruals that will be applicable to Main Line Stations will differ in many essential respects from the reserve accruals that will be applicable to Field Stations. For this reason, it has been necessary to develop an independent estimate of the annual reserve accruals for each group.

The history of compressor station equipment in service in connection with the public service operations of Lone Star Gas Company has been comparatively brief. (See rate of growth Compressor Station Land, Structures and Equipment—Lone Star Gas Company.) The first installation was made in the year 1914, and consisted of a portion of the major units now in service as the Petrolia Main Line Station. [fol. 9507] This installation represents approximately fourteen per cent of the total horse-power installed and in service as of January 1, 1933. The first Field Station was installed in 1920, and this installation is now a part of the Fox Central Field Station. Of the present operative horse-power, seventy-five per cent has been in service less than ten years.

With the exception of certain major structures, the compressor units of Lone Star Gas Company are the largest individual property units found in the inventory of its

physical property. These units belonging to that class of property items whose mortality curve remains fairly constant at approximately one-hundred per cent survivors for a number of service years and then declines with comparative rapidity until one-hundred per cent abandonment is reached. The mortality of property items of this type, in practically every case, is brought about by excessive operating costs, or by the obsolescence of the equipment. True mortality data for this type of equipment are extremely rare due to the fact that a relatively small number of units are involved in any investigation, and to the comparatively long life cycle of the units themselves.

The history of Lone Star Gas Company offers no example of the complete functional depreciation of any of its individual compressor units. It must be borne in mind, however, that as of January 1, 1933, the oldest unit in service had been in service only seventeen years as of that date. Despite the lack of specific information concerning the mortality of any of the units, it is not reasonable to assume, in view of the mortality experience of all other types of reciprocating machinery, that the functional depreciation of the compressor units of Lone Star Gas Company will vary in [fol. 9508] any substantial way from the results of general experience and that the maximum service life of any given unit will exceed fifty years, or that the average service life of the group will exceed thirty-five years.

A typical mortality curve that compares to these basic stipulations has been prepared and will be discussed in detail in connection with the development of Functional Depreciation—Compressor Units.

An inspection of this curve discloses the fact that unlike the mortality curves of smaller property units whose individual mortalities have a wide variation from the average, the factor of replacements of replacements will have a relatively unimportant bearing upon the total replacements. In fact, any consideration of this factor may be eliminated without material error due to the fact that the life cycle of the group will probably extend beyond the period of time during which the property as a whole should be amortized and to the further fact that failures will be concentrated within a limited period of time.

In a situation of this character the logical method of reserve accrual is the accumulation of the reserves required

for complete functional depreciation upon a sinking fund basis.

What has been said up to this point has referred specifically to the complete functional depreciation of the main compressor units in service in both Main Lines and Field Stations. Incidental replacements of major elements of these main units have taken place in the past and will continue to take place at an accelerated rate as the age of the individual units, main and auxiliary, increases. Such replacements must be anticipated and be provided for by means of reserve accruals.

[fol. 9509] Included in the account, Compressor Station Land, Structures and Equipment, are many property items other than the main compressor units. These items include steel and wooden structures, cooling towers, underground and overhead piping and miscellaneous auxiliary equipment. Each of these items has a mortality rate that is dependent upon the class of materials used in construction and the type of service the units are called upon to render. For these reasons, it has been necessary to weigh the relative reproduction cost of the constituent elements of each compressor station in order to arrive at a rational basis for the calculation of the total reserve accrual requirements for Compressor Station Structures and Equipment.

As was stated at the beginning of this section of the report, the compressor installations of Lone Star Gas Company have been divided into two general classes—Main Line Stations and Field Stations. Field Stations have been defined as those stations so located with reference to the system as a whole as to be generally dependent with reference to service life in situ, upon the life expectancy of one or more gas fields. This condition introduces a factor of loss that grows out of the fact that the normal operations in the past have required, and will in the future require, the removal of units from one location to another and in many cases the complete abandonment of a station at a particular location and its wholesale transfer to another site better suited to the requirements of current operations.

It is evident that such removals, in part or as a whole, will result in substantial losses that must be met by means of reserve accruals. The history of the company's operations [fol. 9510] from 1920 to July 1, 1933, affords a very fruitful source of information relative to mortalities arising

ing from this source. These data have been fully correlated in the text.

Summarizing briefly the factors covered in the foregoing discussion, it may be stated that the determination of the proper annual reserve accruals designed to cover the depreciation, current replacements and other costs properly chargeable to reserve accounts in connection with the operation of the compressor stations of Lone Star Gas Company will require the following basic data:

1. The ratio of the reproduction cost of Main Line Stations to the reproduction cost of Field Stations.
2. An estimate of the rate of functional depreciation of the constituent elements of Main Line Stations and Field Stations.
3. The determination of the accrual charges for current replacements in all Structures and Equipment.
4. The determination of the probable rate of removal of compressor units due to depletion of gas reserves and other changed operating conditions.
5. The ratio of loss to salvable value in partial and complete removals of equipment installed in Field Stations.

Ratio of Reproduction Cost of Main Line Stations to the Reproduction Cost of Field Stations

Due to their location with reference to the main transmission lines of the system of Lone Star Gas Company, the following stations have been designated Main Line Stations:

[fol. 9511]	Reproduction Cost
Station	January 1, 1933
Gainesville	\$76,295
Joshua No. 1	441,056
Joshua No. 2	69,602
Petrolia	1,056,638
Total Main Line Stations	<hr/> \$1,643,591

Due to their location with reference to the system as a whole, the following stations have been designated Field Stations:

Defendant's Exhibit No. 42—Continued

Station	Reproduction Cost January 1, 1933
Alvord	\$14,505
Brad	162,193
Brázos	89,622
Breckenridge	290,099
Caddo	261,986
Cheaney	137,093
Desdemona	77,230
Eastland	130,994
Fox Central	244,286
Fox East	101,216
Gas City	281,623
Ibex	249,131
Loco	136,705
Pueblo	87,368
Ranger No. 1	128,856
Ranger No. 2	113,005
Ranger No. 3	291,651
Ranger No. 4	165,904
Sipe Springs	182,576
Tiffin	51,067
X-Ray	69,241
Total Field Stations	\$3,266,355

Annual Rates for Functional Depreciation

As was set out in the previous discussion, the total reserve accruals required for Compressor Station Land, Structures and Equipment of Lone Star Gas Company will consist of the accruals required to meet the functional depreciation of the individual property units which will ac-[fol. 9512] crue irrespective of the location of these units, the losses brought about by reason of the removal of whits or the complete removal of stations, the cost of current renewals, and the decline in over-all per-cent of new condition.

For the purpose of determining the relative reproduction cost of the constituent items making up the total reproduction cost of compressor stations, a break-down has been prepared for both Main Line Stations and Field Stations.

The following tabulations set out in summary form the result of these break-downs.

Main Line Stations

Item	Amount	Per cent of Total
Land and Improvements.....	\$26,181	1.59
Leaseholds and Improvements.....	3,072	.19
Structures—Class A.....	120,064	7.30
Structures—Class B.....	129,849	7.90
Main Units.....	772,811	47.02
Boiler Plant.....	54,815	3.34
Auxiliary Units.....	68,755	4.18
Water Supply.....	20,965	1.28
Water Storage Tanks.....	37,154	2.26
Cooling Towers.....	26,606	1.62
Plant Piping.....	253,800	15.44
Field Water Lines.....	34,724	2.11
Shop Equipment.....	25,168	1.53
Furniture and Fixtures.....	2,515	.16
Fire Protection Equipment.....	1,360	.08
Other Equipment.....	59,707	3.63
Joint Facilities.....	6,046	.37
Total.....	<u>\$1,643,592</u>	<u>100.00</u>

Field Stations

Item	Amount	Per cent of Total
Land and Improvements.....	\$70,368	2.15
Leaseholds and Improvements.....	26,914	.82
Structures—Class A.....	195,308	5.98
Structures—Class B.....	272,835	8.35
Main Units.....	1,674,822	51.28
Auxiliary Units.....	127,418	3.90
Water Supply.....	52,267	1.60
[fol. 9513] Water Storage Tanks.....	36,464	1.12
Cooling Towers.....	64,600	1.98
Plant Piping.....	534,529	16.36
Field Water Lines.....	96,881	2.97
Shop Equipment.....	7,583	.23
Furniture and Fixtures.....	4,662	.14
Fire Protection Equipment.....	6,732	.21
Other Equipment.....	94,967	2.91
Total.....	<u>\$3,266,350</u>	<u>100.00</u>

Class A Structures—Steel Frame, Iron sides—Lighting equipment included.

Class B Structures—Wood Frame, Iron or wood sides—Lighting equipment included.

Water Supply—Water wells, dams and pumping equipment.

Cooling towers—Cooling Tower, Louvre vents and concrete basins.

Plant piping—All plant piping, overhead and underground.

Field Water Lines—All pipe and fittings to source of supply.

Other Equipment—Machinery parts, guard rails, miscellaneous equipment and supplies.

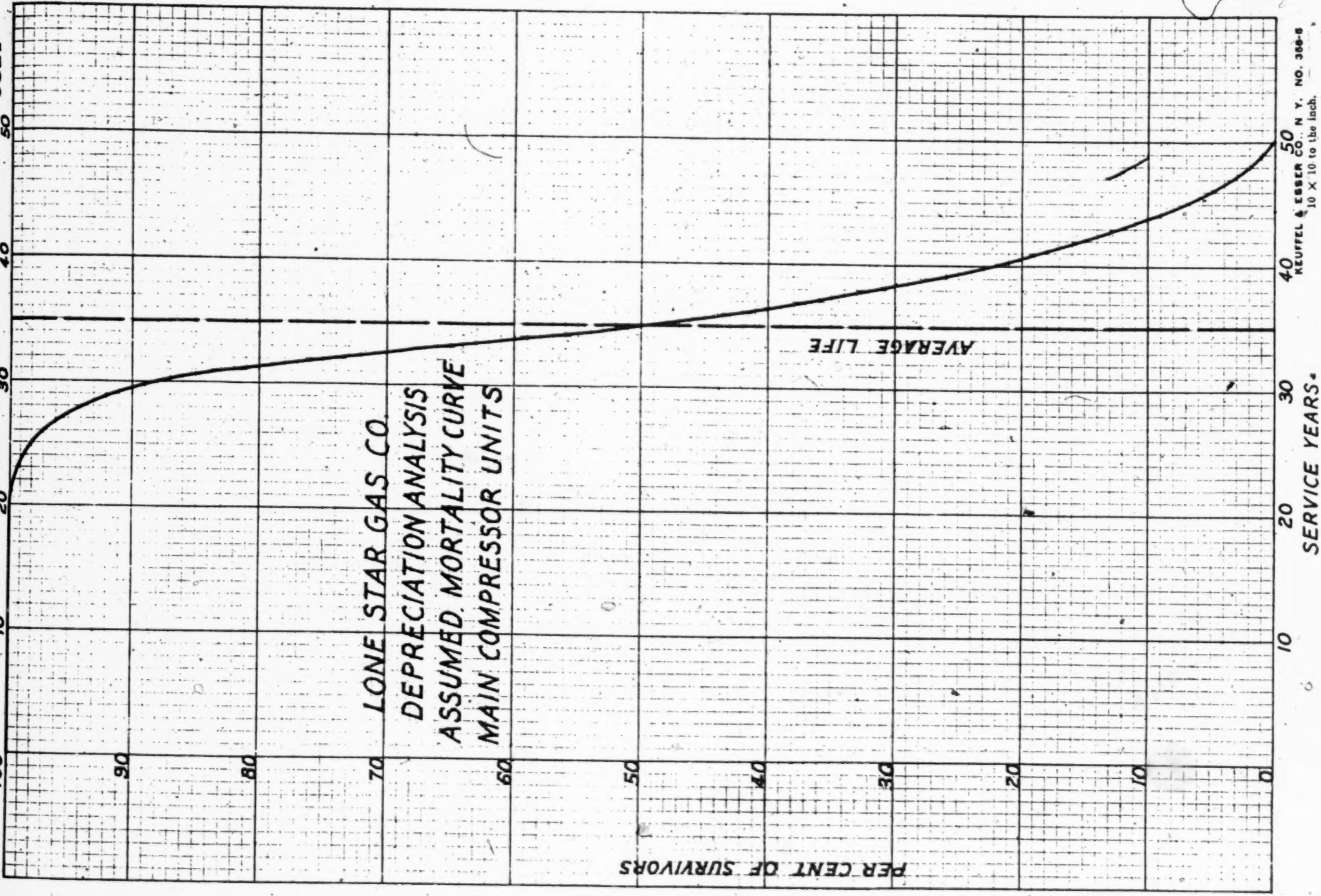
As indicated by the mortality curve adopted for the functional depreciation of main units, the estimated average life of the Main Units is 35.00 years (area under Mortality Curve equals 3,500 units. Total area equals 5,000 units. Ratio equals 70.0 per cent times total life of 50 years equals 35.0 years average life), or an ultimate average rate for replacements of 2.86 per cent per annum.

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As previously suggested, due to the indicated characteristics of the mortality curve, this annual rate should be expressed as an annuity. A thirty-five year annuity calculated upon the basis of five per cent interest compounded annually becomes 1.10 per cent per annum. This annual rate has been adopted for the functional depreciation of [fol. 9515] Main Units.

All other annual rates herein applied to other items included in the general account—Compressor Station Land, Structures and Equipment were selected after a careful consideration of the type of equipment in service and the character of service rendered. Consideration was also given to the annual rates prescribed for similar equipment in Depreciation Studies—Preliminary Report of the Bureau of Internal Revenue.

Main Line Stations

Item	Per cent of Total	Annual Rate of Reserve	Annual Weighted Rate
Land and Improvements.....	1.59	2.00	.0318
Leaseholds and Improvements.....	.19	2.00	.0038
Structures—Class A.....	7.30	3.33	.2431
Structures—Class B.....	7.90	6.67	.5269
Main Units.....	47.02	1.10	.5172
Boiler Plant.....	3.34	7.00	.2338
Auxiliary Units.....	4.18	5.00	.2090
Water Supply.....	1.28	2.00	.0256
Water Storage Tanks.....	2.26	5.00	.1130
Cooling Towers.....	1.62	6.67	.1081
Plant Piping.....	15.44	5.00	.7720
Field Water Lines.....	2.11	5.00	.1055
Shop Equipment.....	1.53	15.00	.2295
Furniture and Fixtures.....	.16	10.00	.0160
Fire Protection Equipment.....	.08	6.67	.0053
Other Equipment.....	3.63	10.00	.3630
Joint Equipment.....	.37	5.00	.0185
Total Weighted Annual Rate.....			<u>3.5221</u>

Field Stations

Land and Improvements.....	2.15	2.00	.0430
Leaseholds and Improvements.....	.82	2.00	.0164
Structures—Class A.....	5.98	3.33	.1991
Structures—Class B.....	8.35	6.67	.5569
Main Units.....	51.28	1.10	.5641
Auxiliary Units.....	3.90	5.00	.1950
Water Supply.....	1.60	2.00	.0320
Water Storage Tanks.....	1.12	5.00	.0560
Cooling Towers.....	1.98	6.67	.1321

[fol. 9516]

Field Stations (Cont'd)

Item	Per cent of Total	Annual Rate of Reserve	Annual Weighted Rate
Plant piping.....	16.36	5.00	.8180
Field Water Line.....	2.97	5.00	.1485
Shop Equipment.....	.23	15.00	.0345
Furniture and Fixtures.....	.14	10.00	.0140
Fire Protection Equipment.....	.21	6.67	.0140
Other Equipment.....	2.91	10.00	.2910
Total Weighted Annual Rate.....			3.1146

Reserves Required for Losses Due to Removals

The calculation of the annual reserve accrual required to offset losses growing out of the removal of individual compressor units, or the complete removal or abandonment of Field Stations is based upon the experience of Lone Star Gas Company with reference to this type of loss.

As shown by the tabulation included herein, 9,175 horsepower originally installed in Field Stations has been removed or abandoned as of July 1, 1933. The horsepower as shown by the tabulations represented 32.30 per cent of the total horsepower in service in Field Stations as of January 1, 1933, together with such horsepower as has been abandoned or transferred to other classes of service. This determination was made by dividing 9,175 by 28,405.

It is also shown by the tabulations that the weighted age of Field Station Units, together with units previously used in Field Stations and subsequently transferred to other classes of service was 8.39 years. The rate of removal indicated by these data is 3.85 per cent at approximately eight service years.

It is obvious that the same probability of future removal will apply to units that have been removed from an original location to a new location as was applicable to these units [fol. 9517] when originally installed.

For this reason, the mortality curve shown in the graph—Lone Star Gas Company Depreciation Analysis—Mortality Curve—Field Compressor Stations, and the distribution curve of annual removals gives effect to factor of removals of removals.

This distribution curve was based upon a uniform slope for the mortality curve indicating a rate of 3.30 per cent per annum for the removal of units from original locations.

The calculated annual rates of removals of original units and removals of removed units are shown in the tabulation—Calculated Annual Removal Rates from Mortality Curve—Field Compressor Stations.

As a check upon the accuracy of the mortality curve adopted the cumulative removal rates for various service years have been applied to the horsepower installed for the corresponding service years. The results of this check are shown in the following tabulation:

Year	Horse Power	Cumulative % Age of Removals	Horse Power Calculated Removals
1919.....	300	57.54	172.63
1920.....	880	52.51	462.10
1921.....	1,800	47.64	857.51
1922.....	4,320	42.92	1,854.28
1923.....	3,200	38.36	1,227.44
1924.....	4,160	33.94	1,411.80
1925.....	1,615	29.66	478.99
1926.....	5,890	25.52	1,502.94
1927.....	2,340	21.51	503.27
1928.....	800	17.63	141.00
1929.....	2,940	13.87	407.72
1930.....		10.23	.....
1931.....	160	6.71	10.73
1932.....		3.30	.....
1933.....		.....	.....
Total.....	28,405		9,030.41

[fol. 9518] The calculated horsepower removed, 9,030.41, is to be compared with 9,175 horsepower historically removed from Field Stations.

The accuracy of the adopted mortality curve for Field Station removals having been established by the foregoing check, the future removal rates from the distribution curve were calculated for the years 1934 to 1955 inclusive in the tabulation—Calculation of Future Renewal Rates—Field Compressor Stations. For convenience and reference, the results shown in the calculation are set out in the following summary:

Defendant's Exhibit No. 42—Continued

Year	Calculated Horse Power Removed*	Per cent of Total*
1934.....	1,235.34	4.35
1935.....	1,276.26	4.94
1936.....	1,318.33	4.64
1937.....	1,361.88	4.79
1938.....	1,406.92	4.95
1939.....	1,453.17	5.12
1940.....	1,501.09	5.28
1941.....	1,550.86	5.46
1942.....	1,601.96	5.64
1943.....	1,645.99	5.83
1944.....	1,709.68	6.02
1945.....	1,765.82	6.22
1946.....	1,824.24	6.42
1947.....	1,884.15	6.63
1948.....	1,946.44	6.85
1949.....	2,010.68	7.08
1950.....	2,076.82	7.31
1951.....	2,135.44	7.52
1952.....	2,176.39	7.66
1953.....	2,187.62	7.70
1954.....	2,113.71	7.44
1955.....	2,069.89	7.29

* Calculated horse power removed is based upon 28,405 horse power installed. The actual horse power in service in Field Stations is 26,005. The use of the larger figure does not affect the calculated per cent of total.

Of the total horsepower removed or abandoned, 6,370.00 horsepower, or 69.43 per cent of the removals, was represented by complete removal or abandonment.

[fol. 9519] For this reason, an estimate has been made of the ratio of loss for both complete and partial removal or abandonment for a typical Field Station equipped with seven type 80, 170 horse power Cooper units, and two type 2, 10 horse power Fairbanks Morse auxiliary engines. Another estimate was made from an actual cost break-down of three typical Field Stations, and the results obtained from both estimates were in approximate agreement. From the tabulation—Estimated Loss on Total Removal or Abandonment—Typical Field Stations, and from the tabulation—Estimated Loss on Partial Removal—Typical Field Stations, it was developed that the percentage of loss on total removal or abandonment would be approximately 49.2 per cent of the total installed cost, and that the percentage of loss in partial removals would be approximately 21.9 per

cent of the total installed cost. The weighted percentage of loss is found as follows:

30.57 per cent times 21.9 per cent	6.69 per cent.
69.43 per cent times 49.2 per cent	34.16 per cent.
	<hr/> 40.85 per cent.

This weighted per cent of the total installed cost of Field Stations which represents the estimated per cent of loss by reason of partial and complete removals becomes the factor to be applied to the Calculated Future Removal Rates—Field Compressor Stations.

When this factor is applied to each of the annual rates of removal from 1934 to 1955 inclusive, which annual rates have been taken from the distribution curve of annual removals—Mortality Curve Field Compressor Stations, the resultant annual rates become the estimated future annual rates for losses on removals of Field Compressor Stations after giving effect to the salvable value of equipment in both partial and complete removals. The following summary [fol. 9520] sets out the results obtained by the application of the factor to each of the estimated removal rates, 1934 to 1955 inclusive.

Year	Annual Rate Per cent	Factor	Adjusted Annual Rate Per cent
1934.....	4.35	40.85	1.78
1935.....	4.49	40.85	1.83
1936.....	4.64	40.85	1.90
1937.....	4.79	40.85	1.96
1938.....	4.95	40.85	2.02
1939.....	5.12	40.85	2.09
1940.....	5.28	40.85	2.16
1941.....	5.46	40.85	2.23
1942.....	5.64	40.85	2.30
1943.....	5.83	40.85	2.38
1944.....	6.02	40.85	2.46
1945.....	6.22	40.85	2.54
1946.....	6.42	40.85	2.62
1947.....	6.63	40.85	2.71
1948.....	6.85	40.85	2.80
1949.....	7.08	40.85	2.89
1950.....	7.31	40.85	2.99
1951.....	7.52	40.85	3.07
1952.....	7.66	40.85	3.13
1953.....	7.70	40.85	3.15
1954.....	7.44	40.85	2.04
1955.....	7.29	40.85	2.98

[fol. 9521] Annual Reserve Accrual Required for Current Replacements

The annual rate of reserve accrual required for the functional depreciation of the constituent elements of both Main Line Stations and Field Stations and the annual rate of reserve accrual required for the cost of removals in Field Stations have been covered in the foregoing discussion. Consideration remains to be given to the annual rate required for current replacements and renewals properly chargeable to reserve accounts. The term Current Replacements, as used in this connection, is intended to cover the cost of the renewal of integral parts of the various items of equipment as distinguished from the replacement of the unit as a whole; the renewal of paint and other similar charges have been included under the general head of Current Replacements.

A complete analysis has been made of charges to the account Reserve for Depreciation—Compressor Station Construction and Equipment, the years 1929, 1930 and 1931. The results of this analysis are shown in the tabulation Summary of Charges to Reserve for Depreciation—Compressor Station Construction and Equipment.

It is evident from the summary that the annual charges to cover the cost of current replacements, as heretofore defined as distinguished from the cost of functional depreciation and the cost of major removals have been approximately one per cent per annum applied to the reproduction cost of Compressor Station Structures and Equipment. It is probable that the annual rate indicated by the current charges will increase with the increasing age of the structures and units and for this reason the adopted annual rate of reserve accrual, one per cent, is conservative.

Defendant's Exhibit No. 42—Continued

Summary of Charges to Reserve for Depreciation—
Compressor Station Construction and Equipment

Classification of Charges	Year 1929	Year 1930	Year 1931	Average Three Years
Painting Class A and B Structures.....	\$23,420.36	\$7,213.89	\$297.27†	\$10,112.33*
Repairs to Class A and B Structures.....	1,416.78	1,473.73	1,453.00	1,447.84*
Furniture and Fixtures.....		67.50	23.00	30.17*
Major Repairs to Main Units.....	6,702.96	15,822.67	24,590.63	15,705.42*
Major Repairs to Auxiliary Units.....	1,330.85	4,215.64	1,223.44	2,256.64*
Repairs to Gas Piping.....	4,216.81	10,377.79	9,192.90	7,929.17*
Repairs to Cooling Coils.....	12,027.04	2,410.33	2,062.34	5,499.90*
Abandonment of Class B Structures.....	637.55		20.00	219.18
Abandonment of Lines.....	3,067.41	8,082.50	5,489.01	5,546.31
Replacements and Abandonments of Miscellaneous Items.....	2,106.54	3,790.66	18,249.00	8,048.73
Major Removals.....	148,078.09	22,775.09	101,610.78	90,821.32
Removals and Abandonments of Auxiliary Units.....		437.62	2,016.38	818.00
Total Reserve Charges.....	\$203,004.39	\$76,667.42	\$165,633.21	\$148,435.01
Decline in Percent of New Condition Sustained but not charged....	50,000.00	50,000.00	50,000.00	50,000.00
Total.....	\$253,004.39	\$126,667.42	\$215,633.21	\$198,435.01

* Items included under Current Replacements.

† Red in copy.

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[fol. 9523] Annual Reserve Accrual Required for Decline in
Per Cent of New Condition

The reproduction cost of Compressor Station Structures and Equipment was included in the reproduction cost of the physical property, which, as a whole, was found to have suffered an annual decline in per cent of new condition of approximately one per cent per weighted service year and this rate of annual decline will continue for approximately fifteen years and the annual loss in value must be provided for by means of a reserve accrual of one per cent per annum for a period of at least fifteen years.

Salvable Value—Items Subject to Functional Depreciation

Of the total installed cost of the Main Line and Field Compressor Stations approximately fifty per cent would have some salvable value on replacement or abandonment. In order to salvage this material, approximately five per cent of the installed cost would be expended for recovery, leaving a net salvable value of forty-five per cent of the total installed cost upon the assumption that the recovered material has a salvage value of one hundred per cent of new. In view of the fact that functional depreciation as herein used contemplates the loss of usable value in the property item under consideration, not more than 33.3 per cent of value new could be obtained from items replaced or abandoned by reason of accrued functional depreciation—33.3 per cent applied to the gross salvable value, 45 per cent, results in an estimated net salvable value of 15 per cent. Therefore, .85 becomes the factor applicable to the indicated annual rate designed to provide for functional depreciation of equipment in both Main Line and Field Stations.

[fol. 9524]

Summary

Main Line Stations:

The total annual rate of reserve accrual for Main Line Stations is as follows:

1. Annual Rate for Functional Depreciation 3.522 per cent times .85	2.994 per cent.
2. Annual Rate for Current Replacements	1.000 per cent.
3. Annual Rate for Decline in Per Cent of New Condition	1.000 per cent.

Total Annual Rate—Main Line Stations	4.994 per cent.
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Field Stations:

The total annual rate for Field Stations is shown in Tabulation Showing Annual Rate of Reserve Accrual Field Compressor Stations, wherein average annual accrual of 6.83 per cent is indicated.

As previously set out, the reproduction cost of Main Line Stations as of January 1, 1933 was found to be \$1,643,591 and the reproduction cost of Field Stations as of the same date was found to be \$3,266,355. The ratio of the reproduction cost of Main Line Stations to the reproduction cost of Field Stations is, therefore, 33.47 to 66.53.

The weighted average annual rate of reserve accrual for both Main Line and Field Stations is, therefore:

33.47 per cent times 4.994 per cent = 1.6715 per cent.

66.53 per cent times 6.831 per cent = 4.5447 per cent.

Weighted Average Annual Rate 6.2162 per cent.

[fols. 9525-9528]

Tabulation Showing
Annual Rate of Reserve Accrual

Year	Field Compressor Stations				
	A	B	C	D	E
1934.....	1.00	1.00	2.648	1.78	6.428
1935.....	1.00	1.00	2.648	1.83	6.478
1936.....	1.00	1.00	2.648	1.90	6.548
1937.....	1.00	1.00	2.648	1.96	6.608
1938.....	1.00	1.00	2.648	2.02	6.668
1939.....	1.00	1.00	2.648	2.09	6.738
1940.....	1.00	1.00	2.648	2.16	6.808
1941.....	1.00	1.00	2.648	2.23	6.878
1942.....	1.00	1.00	2.648	2.30	6.948
1943.....	1.00	1.00	2.648	2.38	7.028
1944.....	1.00	1.00	2.648	2.46	7.108
1945.....	1.00	1.00	2.648	2.54	7.188
1946.....	1.00	1.00	2.648	2.62	7.268
1947.....	1.00	1.00	2.648	2.71	7.358
1948.....	1.00	1.00	2.648	2.80	7.448
1949.....	.....	1.00	2.648	2.89	6.538
1950.....	.....	1.00	2.648	2.99	6.638
1951.....	.....	1.00	2.648	3.07	6.718
1952.....	.....	1.00	2.648	3.13	6.778
1953.....	.....	1.00	2.648	3.15	6.798
1954.....	.....	1.00	2.648	3.04	6.688
1955.....	.....	1.00	2.648	2.98	6.628

Average Annual Rate..... 6.831

A—Annual Percentage for Decline in Percent of New Condition.

B—Annual Percentage for Current Replacements.

C—Annual Percentage for Functional Depreciation (3.115 x .85).

D—Annual Percentage for Major Removals.

E—Total Annual Reserve Accrual—Percentage of Reproduction Cost—Field Compressor Station Structure and Equipment.

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(Here follows one paster, side folios 9529 to 9531.)

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Defendant's Exhibit No. 42—Continued

[fol. 9529]

Compressor Stations

Future Annual Removal Rates—Field Stations—From Mortality Curves

Year	A	1934		1935		1936		1937		1938		1939		1940		1941	
		B	C	B	C	B	C	B	C	B	C	B	C	B	C	B	C
1919.....	300.00	5.20	15.60	5.37	16.11	5.55	16.65	5.73	17.19	5.92	17.76	6.12	18.36	6.32	18.96	6.53	19.59
1920.....	880.00	5.03	44.26	5.20	45.76	5.37	47.26	5.58	48.84	5.73	50.42	5.92	52.10	6.12	53.86	6.32	55.62
1921.....	1,800.00	4.87	87.66	5.03	90.54	5.20	93.60	5.37	96.66	5.55	99.90	5.73	103.14	5.92	106.56	6.12	110.16
1922.....	4,320.00	4.72	203.90	4.87	210.38	5.03	217.30	5.20	224.64	5.37	231.98	5.55	239.76	5.73	247.54	5.92	255.74
1923.....	3,200.00	4.57	146.24	4.72	151.04	4.87	155.84	5.03	160.96	5.20	166.40	5.37	171.84	5.55	177.60	5.73	183.36
1924.....	4,160.00	4.42	183.87	4.57	190.11	4.72	196.35	4.87	202.59	5.03	209.25	5.20	216.32	5.37	223.39	5.55	230.88
1925.....	1,615.00	4.28	69.12	4.42	71.38	4.57	73.81	4.72	76.23	4.87	78.65	5.03	81.23	5.20	83.98	5.37	86.73
1926.....	5,890.00	4.14	243.85	4.28	252.09	4.42	260.34	4.57	269.17	4.72	278.01	4.87	286.84	5.03	296.27	5.20	306.28
1927.....	2,340.00	4.01	93.83	4.14	96.88	4.28	100.15	4.42	103.43	4.57	106.94	4.72	110.45	4.87	113.96	5.03	117.70
1928.....	800.00	3.88	31.04	4.01	32.08	4.14	33.12	4.28	34.24	4.42	35.36	4.57	36.56	4.72	37.76	4.87	38.96
1929.....	2,940.00	3.76	110.54	3.88	114.07	4.01	117.89	4.14	121.72	4.28	125.83	4.42	129.95	4.57	134.36	4.72	138.77
1930.....		3.64		3.76		3.88		4.01		4.14		4.28		4.42		4.57	
1931.....	160.00	3.52	5.63	3.64	5.82	3.76	6.02	3.88	6.21	4.01	6.42	4.14	6.62	4.28	6.85	4.42	7.07
1932.....		3.41		3.52		3.64		3.76		3.88		4.01		4.14		4.28	
1933.....		3.30		3.41		3.52		3.64		3.76		3.88		4.01		4.14	
Total Horse Power.....			1,235.54		1,276.26		1,318.33		1,361.88		1,406.92		1,453.17		1,501.09		1,550.86
Per Cent of Total.....			4.35		4.49		4.64		4.79		4.95		5.12		5.28		5.46

[fols. 9530-9531]

Year	A	1942		1943		1944		1945		1946		1947		1948		1949	
		B	C	B	C	B	C	B	C	B	C	B	C	B	C	B	C
1919.....	300.00	6.74	20.22	6.96	20.88	7.19	21.57	7.43	22.29	7.68	23.04	7.93	23.79	8.19	24.57	8.46	25.38
1920.....	880.00	6.53	57.46	6.74	59.31	6.96	61.25	7.19	63.27	7.43	65.38	7.68	67.58	7.93	69.78	8.19	72.07
1921.....	1,800.00	6.32	113.76	6.53	117.54	6.74	121.32	6.96	125.28	7.19	129.42	7.43	133.74	7.68	138.24	7.93	142.74
1922.....	4,320.00	6.12	264.38	6.32	273.02	6.53	282.10	6.74	291.17	6.96	300.67	7.19	310.61	7.43	320.98	7.68	331.78
1923.....	3,200.00	5.92	189.44	6.12	195.84	6.32	202.24	6.53	208.96	6.74	215.68	6.96	222.72	7.19	230.08	7.43	237.76
1924.....	4,160.00	5.73	238.37	5.92	246.27	6.12	254.59	6.32	262.91	6.53	271.65	6.74	280.38	6.96	289.54	7.19	299.10
1925.....	1,615.00	5.55	89.63	5.73	92.54	5.92	95.61	6.12	98.84	6.32	102.07	6.53	105.46	6.74	108.85	6.96	112.40
1926.....	5,890.00	5.37	316.29	5.55	326.90	5.73	337.50	5.92	348.69	6.12	360.47	6.32	372.25	6.53	384.62	6.74	396.99
1927.....	2,340.00	5.20	121.68	5.37	125.66	5.55	129.87	5.73	134.08	5.92	138.53	6.12	143.21	6.32	147.89	6.53	152.80
1928.....	800.00	5.03	40.24	5.20	41.60	5.37	42.96	5.55	44.40	5.73	45.84	5.92	47.36	6.12	48.96	6.32	50.56
1929.....	2,940.00	4.87	143.18	5.03	147.88	5.20	152.88	5.37	157.88	5.55	163.17	5.73	168.46	5.92	174.05	6.12	179.93
1930.....		4.72		4.87		5.03		5.20		5.37		5.55		5.73		5.92	
1931.....	160.00	4.57	7.31	4.72	7.55	4.87	7.79	5.03	8.05	5.20	8.32	5.37	8.59	5.55	8.88	5.73	9.17
1932.....		4.42		4.57		4.72		4.87		5.03		5.20		5.37		5.55	
1933.....		4.28		4.42		4.57		4.72		4.87		5.03		5.20		5.37	
Total Horse Power.....			1,601.96		1,654.99		1,709.68		1,765.82		1,824.24		1,884.15		1,946.44		2,010.68
Per Cent of Total.....			5.64		5.83		6.02		6.22		6.42		6.63		6.85		7.08

Year	A	1950		1951		1952		1953		1954		1955		1956		1957	
		B	C	B	C	B	C	B	C	B	C	B	C	B	C	B	C
1919.....	300.00	8.74	26.22	5.72	17.16	5.81	17.43	5.89	17.67	5.97	17.91	6.04	18.12	6.12	18.36	6.19	18.57
1920.....	880.00	8.46	74.45	8.74	76.91	5.72	50.34	5.81	51.13	5.89	51.83	5.97	52.54	6.04	53.15	6.12	53.86
1921.....	1,800.00	8.19	147.42	8.46	152.28	8.74	157.32	5.72	102.06	5.81	104.58	5.89	106.02	5.97	107.46	6.04	108.72
1922.....	4,320.00	7.93	342.58	8.19	353.81	8.46	365.47	8.74	377.57	5.72	247.10	5.81	250.99	5.89	254.45	5.97	257.90
1923.....	3,200.00	7.68	245.76	7.93	253.76	8.19	262.08	8.46	270.72	8.74	279.68	5.72	183.04	5.81	185.92	5.89	188.48
1924.....	4,160.00	7.43	309.09	7.68	319.49	7.93	329.89	8.19	340.70	8.46	351.94	8.74	363.58	5.72	237.95	5.81	241.70
1925.....	1,615.00	7.19	116.12	7.43	119.99	7.68	124.03	7.93	128.07	8.19	132.27	8.46	136.63	8.74	141.15	5.72	92.38
1926.....	5,890.00	6.96	409.94	7.19	423.49	7.43	437.63	7.68	452.35	7.93	467.08	8.19	482.39	8.46	498.29	8.74	514.79
1927.....	2,340.00	6.74	157.72	6.96	162.85	7.19	168.25	7.43	173.86	7.68	179.71	7.93	185.56	8.19	191.65	8.46	197.96
1928.....	800.00	6.53	52.24	6.74	53.92	6.96	55.68	7.19	57.52	7.43	59.44	7.68	61.44	7.93	63.44	8.19	65.52
1929.....	2,940.00	6.32	185.81	6.53	191.98	6.74	198.16	6.96	204.62	7.19	211.39	7.43	218.44	7.68	225.79	7.93	233.14
1930.....		6.12		6.32		6.53		6.74		6.96		7.19		7.43		7.68	
1931.....	160.00	5.92	9.47	6.12	9.79	6.32	10.11	6.53	10.45	6.74	10.78	6.96	11.14	7.19	11.50	7.43	11.89
1932.....		5.73		5.92		6.12		6.32		6.53		6.74		6.96		7.19	
1933.....		5.55		5.73		5.92		6.12		6.32		6.53		6.74		6.96	
Total Horse Power.....			2,076.82		2,135.44		2,176.39		2,187.62		2,113.71		2,069.89		1,989.11		1,984.91
Per Cent of Total.....			7.31		7.52		7.66		7.70		7.44		7.29		7.00		6.99

Column A—Total Horse Power Originally Installed Adjusted to Proper Years in Service (28,405).

Column B—Calculated Horse Power Removed.

Column C—Annual Removal Rate—From Mortality Curve—Field Compressor Stations.

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Defendant's Exhibit No. 42—Continued

[fol. 9532]

Lone Star Gas Company—Compressor Department

Horsepower Installed as of January 1, 1933.

Stations	Description of the Units	Horsepower of Unit	Total Station Horsepower
Alvord.....	1-Type XOG Ingersoll-Rand Gas Engine	90	90
Brad.....	7-Type 80 C.&G. Cooper Gas Engine..	170	1,190
Brazos.....	3-Type 75 C.&G. Cooper Gas Engine..	160	480
Breckenridge..	16-Type 80 C.&G. Cooper Gas Engine.....	170	2,720
Caddo.....	11-Type 80 C.&G. Cooper Gas Engine..	170	1,870
Cheaney.....	5-Type 75 C.&G. Cooper Gas Engine.....	160	.....
	2-Miller Improved Gas Engine.....	165	1,130
Desdemona..	3-Type 75 C.&G. Cooper Gas Engine..	160	480
Eastland.....	2-Watts Miller Gas Engine.....	225	.....
	3-Miller Improved Gas Engine.....	190	1,020
Fox Central..	5-Type 1919 C.&G. Cooper Gas Engine	110	.....
	2-Type 1919 C.&G. Cooper Gas Engine	150	.....
	5-Type 75 C.&G. Cooper Gas Engine..	160	.....
	1-Miller Improved Gas Engine.....	110	.....
	1-Bessemer Gas Engine.....	80	1,840
Fox East.....	2-Type 1919 C.&G. Cooper Gas Engine	110	.....
	4-Type 1919 C.&G. Cooper Gas Engine	150	820
Gainesville...	4-Type 75 C.&G. Cooper Gas Engine..	160	640
Gas City.....	14-Type 75 C.&G. Cooper Gas Engine..	160	2,240
Ibex.....	14-Type 75 C.&G. Cooper Gas Engine..	160	2,240
Josuha.....	8-Type 75 C.&G. Cooper Gas Engine..	160	.....
	9-Type 75 C.&G. Cooper Gas Engine..	170	.....
	4-Type XPV Ingersoll-Rand.....	250	3,810
Loco.....	2-Type 1919 C.&G. Cooper Gas Engine	110	.....
	6-Type 1919 C.&G. Cooper Gas Engine	150	1,120
Petrolia.....	2-Single Tandem Worthington Engine..	650	.....
	5-Twin Tandem Worthington Engine..	250	.....
	1-Type 75 C.&G. Cooper Gas Engine..	160	7,710
Pueblo.....	4-Type X Bessemer Gas Engine.....	165	660
Ranger No. 1.	5-Type 75 C.&G. Cooper Gas Engine..	160	.....
	1-Twin Worthington Gas Engine.....	320	1,120
Ranger No. 2.	5-Twin 75 C.&G. Cooper Gas Engine..	160	800
Ranger No. 3.	15-Type 75 C.&G. Cooper Gas Engine..	160	2,400
Ranger No. 4.	9-Type 75 C.&G. Cooper Gas Engine..	160	1,440
Sipe Springs..	6-Type E. C. Bessemer Gas Engine....	165	.....
	2-Type X Bessemer Gas Engine.....	80	1,150
Tiffin.....	2-Type 75 C.&G. Cooper Gas Engine..	160	320
X-Ray.....	2-Type 75 C.&G. Cooper Gas Engine..	160	.....
	1-Twin Clark Gas Engine.....	175	495
Total.....	194-Units.....		37,785
Moran.....	2-Miller Improved Gas Engine.....	190	380
Grand Total	196-Units.....		38,165

Defendant's Exhibit No. 42—Continued

[fol. 9533]

Compressor Stations

Horse Power Capacity—January 1, 1933

Field Line Compressor Stations	Number of Engines	Individual Capacity	Total Capacity
Alvord.....	1	90	90
Brad.....	7	170	1,190
Brazos.....	3	160	480
Breckenridge.....	16	170	2,720
Caddo.....	11	170	1,870
Cheaney.....	5	160	800
Cheaney.....	2	165	1,130
Desdemona.....	3	160	480
Eastland.....	2	225	450
Eastland.....	3	190	1,020
Fox Central.....	5	110	550
Fox Central.....	2	150	300
Fox Central.....	5	160	800
Fox Central.....	1	110	110
Fox Central.....	1	80	1,840
Fox East.....	2	110	220
Fox East.....	4	150	820
Gas City.....	14	160	2,240
Ibex.....	14	160	2,240
Loco.....	2	110	220
Loco.....	6	150	1,120
Moran.....	2	190	380
Pueblo.....	4	165	660
Ranger No. 1.....	5	160	800
Ranger No. 1.....	1	320	1,120a
Ranger No. 2.....	5	160	800
Ranger No. 3.....	15	160	2,400
Ranger No. 4.....	9	160	1,440
Sipe Springs.....	6	165	990
Sipe Springs.....	2	80	1,150
Tiffin.....	2	160	320
X-ray.....	2	160	320
	1	175	495
			26,005
Main Line Compressor Stations			
Gainesville.....	4	160	640
Joshua.....	8	160	1,280
Joshua.....	9	170	1,530
Joshua.....	4	250	3,810
Petrolia.....	2	650	1,300
Petrolia.....	r	1,250	1,250
Petrolia.....	1	190	7,710
			12,160
Total Capacity—All Compressor Stations.....			38,165

Defendant's Exhibit No. 42—Continued

[fol. 9534]

Tabulation Showing Weighted Age—Field Compressor Units Originally Installed

Year	A	B	C	D	E	F	G
1919	300	.....	.....	300	1.056	14	1478
1920	990	110 (a)	.....	880	3.098	13	4027
1921	1,800	.....	.....	1,800	6.337	12	7604
1922	4,800	480 (b)	.....	3,200	11.266	10	11,266
1923	3,360	160 (c)	.....	4,320	15.208	11	11,6729
1924	4,960	800 (d)	.....	4,160	14.645	9	11,3181
1925	1,615	.....	.....	1,615	5.687	8	4550
1926	6,630	850 (e)	110 (1)	5,890	20.736	7	11,4515
1927	2,720	380 (f)	.....	2,340	8.238	6	4943
1928	.....	.....	800 (2)	800	2.816	5	1408
1929	1,230	.....	1,710 (3)	2,940	10.350	4	4140
1930	.....	.....	.....	.....	.....	3	.....
1931	.....	.....	160 (4)	160	5.63	2	0113
1932	.....	.....	.....	.....	.....	1	.....
	<u>28,405</u>	<u>2,780</u>	<u>2,780</u>	<u>28,405</u>	<u>100.000</u>		<u>8,3954</u>

Column A—Total Horse Power Originally Installed.

Columns B & C—Adjustment of Total Horse Power, to Give Proper Years in Service.

Column D—Total Horse Power Adjusted to Proper Years in Service.

Column E—Per cent of Total.

Column F—Service Years.

Column G—Weighted Age.

[fol. 9535] Estimated Loss on Total Removal or Abandonment

Typical Field Station

	A	B	C	D
Average Land and Improvements.....	\$4,358.00	\$3,268.50	.....	\$3,268.50
Material.....	106,041.30	23,010.05	.....	23,010.05
Labor and Hauling.....	26,688.91	26,688.91	\$5,337.58	32,026.49
Engineering.....	2,793.90	2,793.90	.....	2,793.90
Supervision.....	1,968.30	1,968.30	393.60	2,361.90
Stores Expense.....	2,553.94	2,553.94	510.75	3,064.69
Car Earnings.....	2,082.18	2,082.18	.....	2,082.18
Clerical.....	1,863.53	1,863.53	.....	1,863.53
Timekeeper.....	315.80	315.80	.....	315.80
Watchman.....	701.38	701.38	.....	701.38
Water Pumper.....	254.68	254.68	.....	254.68
Welding Material.....	.....	1,560.66	260.11	1,820.77
	<u>\$149,621.92</u>	<u>\$67,061.83</u>	<u>\$6,502.04</u>	<u>\$73,563.87</u>

Per Cent of Total Cost Lost on Removal..... 49.17

Column A—Estimated Total Cost.

Column B—Loss on Total Removal or Abandonment.

Column C—Cost to Remove or Abandon.

Column D—Total Loss.

Defendant's Exhibit No. 42—Continued

[fol. 9536]

Estimated Loss on Partial Removal

Typical Field Station

	A	B	C	D
Material Cost.....	\$77,231.39	\$7,102.63	.....	\$7,102.63
Labor and Hauling.....	7,014.34	7,014.34	\$1,608.00	8,622.34
Stores Expense.....	3,061.76	3,061.76	67.00	3,128.76
Welding Material.....	.....	.....	95.00	95.00
Supervision.....	.....	.....	150.00	150.00
	<u>\$87,307.49</u>	<u>\$17,178.73</u>	<u>\$1,920.00</u>	<u>\$19,098.73</u>

Per cent of Total Cost Lost on Removal..... 21.87

Column A—Estimated Total Cost.

Column B—Lost on Partial Removal.

Column C—Cost of Partial Removal.

Column D—Total Loss on Partial Removal.

[fols. 9537-9544]

Field Compressor Stations

Horse Power Removed

Station	Number of Units	Unit Horse Power	Total Horse Power
Caddo.....	5	170	850
Gas City*	6	160	960
Holloway*	1	160	160
Ibex.....	7	170	1,190
	1	175	175
	2	160	320
Irving*.....	4	160	640
Loco.....	1	110	110
Mineral Wells*	2	160	320
	3	160	480
Oil City*.....	5	160	800
Farke*.....	6	165	990
Pernell*.....	6	160	960
	1	160	160
Ranger No. 1.....	1	160	160
Fox West*.....	1	110	110
	1	80	80
Wynnewood*.....	2	165	330
Total.....			<u>9,175</u>

Per cent of removals of total field station horse power installed (9,175 divided by 28,405).....

32.30

Per cent per annum removed (32.30 divided by 8.395).....

3.85

* Complete removals.

Defendant's Exhibit No. 42—Continued

[fol. 9545]

Summary of Compressor Station Construction

Yearly Horsepower Installed

Compiled from System Set Up as of January 1, 1933

Horsepower of Units Installed

Year	80	90	110	150	160	165	170	175	180	225	250	320	650	1250	Total	Per Cent of Total	Cumulative Per Cent
1914	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5,050	13.36	13.36
1920	...	...	880	...	...	...	...	...	...	...	...	...	1,300	...	880	2.33	15.69
1921	...	...	...	1,800	...	...	...	...	...	...	...	...	...	...	1,800	4.76	20.45
1922	...	...	...	...	2,240	...	...	...	...	...	...	...	...	...	2,240	5.93	26.38
1923	80	...	220	...	3,200	...	...	...	...	...	...	...	...	...	3,500	9.62	35.64
1924	...	...	...	...	5,760	...	...	...	...	...	1,000	...	...	1,250	8,010	21.20	56.84
1925	...	...	...	...	800	...	...	...	...	...	...	320	...	...	1,120	2.96	59.80
1926	...	...	...	...	...	...	5,270	...	...	...	...	...	...	...	5,270	13.94	73.74
1927	...	...	...	...	160	...	...	...	570	450	...	...	...	...	1,180	3.12	76.86
1928	...	...	...	...	1,760	330	...	...	...	...	...	...	...	...	2,090	5.53	82.39
1929	160	90	...	...	960	1,650	...	...	...	...	...	...	...	...	2,860	7.60	89.99
1930	...	...	...	...	320	...	2,040	175	...	...	...	...	...	1,250	3,785	10.01	100.00
Total	240	90	1,100	1,800	15,200	1,980	7,310	175	570	450	1,000	320	1,300	6,250	37,785	100.00	

[fol. 9546]

Part V

[fol. 9547]

Miscellaneous Items

[fol. 9548]

Miscellaneous Property Items

The miscellaneous property items included in the property account of Lone Star Gas Company subject to depreciation, replacements, removals and abandonments but which have not been covered by the detailed analyses in the preceding sections of the report may be summarized as follows:

1. Telephone Line Equipment.
2. General Office Structure.
3. Other General Structures.
4. Production System Structures.
5. Field Measuring Station Structures and Equipment.
6. Transmission System Structures and Equipment.
7. Drilling and Cleaning Equipment.
8. General Shop Equipment.
9. General Office Furniture and Fixtures.
10. Automotive Equipment.
11. Construction Tools.

Due to the manner in which Lone Star Gas Company handles the depreciation charges on Drilling and Cleaning Equipment and Automotive Equipment and Construction Tools, no annual reserve accrual is required in connection with this particular study except that which is necessary to provide for the decline in per cent of new condition. The current depreciation sustained on each of these property items other than the decline in per cent of new condition is charged direct either to an operating account or to a capital account. This practice eliminates the necessity for the accrual of an independent reserve so long as the same method of treating these items is followed.

Telephone Line Equipment

The basic mortality data for treated poles have been taken from a life study of 248,707 treated poles (Christiani—“Relative Life and Value of Treated Poles”). These data are shown in graphic form Lone Star Gas Company [fol. 9549] Mortality and Distribution Curve of Annual Failures of Original Units—Treated Poles.

The average annual renewal rate for treated poles, as indicated by the mortality and distribution curves, is slightly in excess of ten percent.

A breakdown of the reproduction cost estimate of the account Telephone Line Equipment is shown in the following tabulation:

Item	Amount	Per Cent of Total
Rights of way	\$7,059.37	2.28
Wire	87,500.17	28.20
Poles and Cross Arms	163,488.90	52.70
Booths, Phones and Other Equipment	13,083.46	4.22
Insulators, Guys and Hardware	39,095.22	12.60
Total	\$310,227.12	100.00

A further analysis shown that of the total wire in service, approximately 78.50 per cent is copper wire, and \$21.50 per cent is iron wire.

Application of Annual Rates

The net salvable value of poles and other material removed is approximately fifty per cent of the installed cost.

Due to the accounting practice of Lone Star Gas Company with reference to charges to the accrued reserves, it is estimated that approximately fifty per cent of the cost of all replacements will be charged direct to current operating accounts.

Giving effect to each of these factors, the estimated annual weighted rate of reserve accrual required for Telephone Line Equipment is shown in the following tabulation:

[fols. 9550-9553]

Item	Per Cent of Total	Annual Rate	Weighted Annual Rate Per Cent
Rights of Way	2.28	.....	.....
Insulators Guys and Hardware	12.60	2.50	.3150
Poles and Cross Arms	52.70	2.50*	1.3175
Booths, Phones and Other Equipment	4.22	2.50*	.1055
Wire—Iron	6.06	3.90**	.2363
Wire—Copper	22.14	1.65**	.3653
Weighted Annual Rate			2.3396

* Effect given to 50 per cent salvage and 50 per cent of charges made direct to operating accounts.

** Experience of Bell Telephone Company with effect given to 50 per cent of charges made direct to operating accounts.

Decline in Per Cent of New Condition

The average annual decline of one per cent per annum in per cent of new condition applicable to the property as a whole is applicable to Telephone Line Equipment.

Calculation of Annual Rate of Reserve

Weighted Annual Rate	2.34 per cent
Annual decline in per cent of New Condition	1.00 per cent
Total Annual Rate	3.34 per cent

* * * * *

[fol. 9554]

Weighted Service Life of Telephone System

Lone Star Gas Company

January 1, 1933

Year	Total Miles	Per Cent of Total	Service Years	Weighted Age
1910.....	164.48	15.332	22.5	3.4497
1911.....	.....	.....	21.5	.....
1912.....	.....	.....	20.5	.....
1913.....	.....	.....	19.5	.....
1914.....	.....	.....	18.5	.....
1915.....	.....	.....	17.5	.....
1916.....	.....	.....	16.5	.....
1917.....	68.31	6.368	15.5	.9870
1918.....	104.98	9.786	14.5	1.4190
1919.....	49.84	4.646	13.5	.6272
1920.....	28.88	2.692	12.5	.3365
1921.....	100.03	9.324	11.5	1.0723
1922.....	14.15	1.319	10.5	.1385
1923.....	.04	.004	9.5	.0004
1924.....	68.28	6.365	8.5	.5410
1925.....	51.48	4.799	7.5	.3599
1926.....	141.57	13.196	6.5	.8577
1927.....	201.44	18.777	5.5	1.0327
1928.....	9.41	.877	4.5	.0395
1929.....	9.24	.861	3.5	.0301
1930.....	47.18	4.398	2.5	.1100
1931.....	13.48	1.256	1.5	.0188
1932.....	.....	.....	.5	.....
Total.....	1,072.79			

Weighted Service Life..... 11.0203 Years

[fol. 9555]

General Office Structure

The details of the calculations of the annual reserve accrual required for the General Office Structure are shown in the tabulation Schedule of Annual Reserve Accruals—General Office Structure.

As shown in the schedule, the reproduction cost of the General Office Structure was broken down into its constituent elements and an independent annual reserve rate applied to the various items. The individual rates applied were taken from Depreciation Studies Preliminary Report of Bureau of Internal Revenue, Treasury Department, January 1, 1931. The amortization of the reproduction cost of the structure as a whole was based upon a forty year sinking fund accrual compounded annually at 5 per cent. The weighted annual accrual rate developed by this study is 3.30 per cent.

Other General Structures

The property account Other General Structures consists of the general warehouse of Lone Star Gas Company located on Logan Street, Dallas, Texas. The basic rate of reserve accrual for Other General Structures is based upon a thirty year useful life calculated upon a five per cent annuity or sinking fund accrual, which calculation results in an annual accrual for the amortization of the structure of 1.50 per cent.

An annual rate of reserve accrual of one per cent is estimated for the costs of charges and current replacements.

An annual rate of reserve accrual of one per cent is included to offset the annual decline in per cent of new condition applicable to the property as a whole.

The total estimated annual reserve accrual required for Other General Structures is, therefore, 3.50 per cent.

[fol. 9556]

Schedule of Annual Reserve Accruals General Office Structure

	Reproduction Cost New	Probable Life (Years)	Depreciation Rate (Percent)	Annual Amount
Elevators.....	\$13,500	20	5.00	\$675.00
Sidewalk Lift.....	550	25	4.00	22.00
Heating System and Plumbing..	29,147	22	4.50	1,311.62
Lighting System				
Wiring.....	7,600	25	4.00	304.00
Fixtures.....	15,430	15	6.67	1,029.18
Linoleum.....	17,456	8	12.50	2,182.03
Venetian Blinds.....	936	10	10.00	93.60
Roofing.....	584	20	5.00	29.20
Fuel Tank.....	500	30	3.33	16.65
Retirement of Total Cost 40 year basis—5% annuity.....	321,438	40	.80	2,571.50
Painting, Removals and Changes	321,438		1.50	4,821.57
Decline in percent of new condition.....	321,438		1.00	3,214.38
Total Annual Reserve Accrual.....				\$10,607.45
Reproduction Cost of Structure.....				321,438.00
Weighted Average Annual Rate.....				3.30%

[fol. 9557] Production System Structures

The annual rate of reserve accrual for the property account Production System Structures, which consist in the main of frame cottages located on producing leaseholds is based upon the following factors:

Decline in Per cent of New Condition . . .	1.00% per annum.
Current Replacements	2.00% per annum.
Amortization in twelve years, Five per cent annuity basis	6.30% per annum.
<hr/>	
Total Annual Accrual Rate	9.30%

Field Measuring Station Structures

The property account Field Measuring Station Structures consists of the wood framed corrugated iron meter houses located on the various well lines. These structures will be removed from an original location in conformity to the indicated average life of gas wells which has previously been determined to be approximately six years. The replacements and loss incident to periodic removals are approximated twenty-five per cent of the reproduction cost of these structures. The over-all life of the structures will not exceed twenty service years. This analysis indicates a loss of 150 per cent of the reproduction cost of the structures during a service life of twenty years or an annual reserve accrual of 7.50 per cent to provide for the loss on removals and ultimate abandonment. The total annual reserve accrual required is determined as follows:

Decline in Per Cent of New Condition . .	1.00% per annum.
Current Replacements and Paint	2.00% per annum.
Cost of Removals and Abandonment . . .	7.50% per annum.
<hr/>	
Total Annual Accrual Rate	10.50%

[fol. 9558] Field Measuring Station Equipment

The annual rate of reserve accrual for Field Measuring Station Equipment is based upon the same factors as were found to be applicable to Field Measuring Station Structures and the same annual rate, 10.5 per cent, is used.

Transmission System Measuring Station Structures and Equipment

The annual rate of reserve accrual for Transmission Measuring Station Structures is based upon the following factors:

Decline in per cent of new condition	1.0% per annum.
Current Replacements, Painting and Removals.	2.0% per annum.
Amortization in 25 years, 5 per cent annuity basis	2.1% per annum.
Total Annual Accrual Rate	5.1%

The annual rate of reserve accrual for Transmission System Measuring Station Equipment is based upon the same factors which were found to be applicable to Transmission System Measuring Station Structures and the same annual accrual rate, 5.1 per cent, is used.

Office Furniture and Fixtures

The basis for the determination of the annual rate of reserve accrual for Office Furniture and Fixtures is shown in schedule of Annual Reserve Accruals General Office Furniture and Fixtures.

As shown in the schedule, a complete breakdown of the account has been made and to each class of items there has been applied the specific rate for the particular class prescribed by Depreciation Studies, Preliminary Report of the Bureau of Internal Revenue—Treasury Department, January 1931. To the weighted average rate shown in the schedule, 8.70 per cent, there is added 1 per cent to provide for the annual decline in per cent of new condition applicable to the property as a whole, resulting in an annual accrual rate of 9.70 per cent for General Office Furniture and Fixtures.

Defendant's Exhibit No. 42—Continued

Schedule of Annual Reserve Accruals

General Office Furniture and Fixtures

[fol. 9559]

Items	Total Amount	Probable Life (Years)	Depreciation Rate (Per Cent)	Annual Amount
Desks and Tables.....	\$30,504.47	15	6.67	\$2,034.65
Plate Glass for Desk and Table Tops.....	1,220.20	20	5.00	61.01
Chairs and Stools.....	14,094.49	16	6.25	880.91
Settees and Davenport.....	1,470.01	13	7.50	110.25
Book Cases, Cabinets and Files.....	44,622.66	20	5.00	2,231.13
Typewriters.....	9,873.94	6	16.67	1,645.99
Computers and Adding Machines.....	9,487.50	10	10.00	948.75
Calculators (Monroe and Marchant).....	4,435.00	6	16.67	739.31
Billing, Posting, and Accounting Machines.....	32,932.35	8	12.50	4,116.54
Dictaphones and Equipment.....	3,834.14	6	16.67	639.15
Addressographs (Multigraph and Mimeograph).....	3,066.46	10	10.00	306.65
Blue Print Machines.....	2,410.75	15	6.67	160.80
Photostat Machines.....	2,059.05	16	6.25	128.69
Letter Opening and Sealing Machines.....	291.00	10	10.00	29.10
Scales.....	253.44	10	10.00	25.34
Postage Machines.....	648.00	10	10.00	64.80
Check Writer and Protectographs.....	1,149.00	10	10.00	114.90
Costumers.....	1,116.29	20	5.00	55.81
Line-a-times.....	1,106.10	6	16.67	184.39
Stands (Telephone and Machine).....	2,320.17	15	6.67	154.76
Fire Extinguishers.....	47.45	20	5.00	2.37
Trucks (Platform and Warehouse).....	40.60	10	10.00	4.06
Waste Baskets, Letter Trays and Cuspidors.....	1,754.25	10	10.00	175.43
Stapler, Number and Punch Machines.....	1,015.23	10	10.00	101.52
Clocks (Wall).....	28.00	20	5.00	1.40
Fans (Electric).....	338.62	10	10.00	33.86
Map Racks and Holders.....	854.62	15	6.67	57.00
Water Cooler (Electric).....	320.50	10	10.00	32.05
Lamps (Electric).....	240.00	15	6.67	16.01

Step ladders.....	44.50	10	10.00	4.45
Thermometer.....	62.15	10	10.00	6.22
Ink Welle and Stands and Pens.....	582.67	10	10.00	58.27
Rugs and Mats.....	7,651.87	6	16.67	1,275.57
Draperies.....	3,005.50	10	10.00	300.55
Smoking Stands, Desk Pads.....	238.82	10	10.00	23.88
Law Library.....	9,604.52	20	5.00	480.23
Ash Cans and Pails.....	41.80	5	20.00	8.36
Directory and Easel Board.....	117.74	50	2.00	2.35
Thermos Jugs.....	60.00	5	20.00	12.00
Floor Cleaning Equipment.....	385.50	6	16.67	64.26
Dictographs and Buzzers.....	11,495.21	20	5.00	574.76
Shelves.....	2,777.27	15	6.67	185.24
Total.....	\$207,601.84			\$18,052.77
Weighted Average.....			8.70	

[fol. 9560] Amortization Accruals for Property as a Whole

[fol. 9561] In the preceding sections of this report consideration has been given to the annual rate of reserve accruals that should be set aside to provide for the future cost of replacements, removals and abandonments of the various items of physical property included in the property account of Lone Star Gas Company. Consideration has also been given to the loss in value that will currently accrue in this physical property but which cannot be offset by replacements and repairs until such time as a static condition has been brought about by the cumulative effect of replacements of original units and replacements of replacements.

• One of the basic assumptions upon which this study has been predicated was that the reserve accruals should provide for the maintenance of the status quo of the property as of January 1, 1933, with respect to the number of units in service and to the operating efficiency of the property as of that date. In the case of a few specific property units, a provision was made for the ultimate retirement of the units as a whole. The manner in which the property unit General Office Structure was treated is typical of the limited use of this method of reserve accrual. With these exceptions eliminated, no consideration has been given to the annual reserve accrual that would have as its primary function the provision for the loss caused by the ultimate abandonment of the property as a whole.

It will be obvious to anyone who has made a study of the natural gas business that any company that is engaged primarily in the production and transportation of natural gas should make some definite provision for that ultimate loss of service value in property dedicated to the production and transportation of natural gas that will grow out of the inevitable final exhaustion of the very basis of the property's operations.

[fol. 9562] The production and transportation of natural gas is primarily a mining venture and continuity of operation is directly dependent upon the capacity of natural reservoirs of gas which cannot be replenished and which are subject to inevitable exhaustion. This basic fact sharply differentiates the characteristics of the natural gas business from those of any other public utility enterprise. This basic fact also creates the obvious necessity for a

fundamentally different treatment of certain phases of reserve accruals on the part of natural gas production and transportation properties as contrasted with the methods of accrual applicable to properties having service lives which are independent of the depletion of a limited supply of a natural resource.

The rational method of providing for the conditions that are brought about by the inherent characteristics of the production and transportation of natural gas is the accumulation of an annual sum which at the end of a given period of time will return to the owners of the property a sum of money equal to the value which will be lost upon the abandonment of the enterprise.

Inasmuch as the reserve accruals that have heretofore been developed are designed to provide for the future cost of current replacements, removals and abandonments of property items required to maintain the status quo of the physical property of Lone Star Gas Company in service as of January 1, 1933, any accumulation in a reserve account in excess of the amounts accrued for the costs of current replacements, removals and abandonments will build up as credit balance until such time as it will be required for final liquidation. A reserve accrual of this type will not be subject to current withdrawals and for this reason may be accumulated upon a sinking fund basis provided no deduction is made from a rate-base by reason [fol. 9563] of so-called accrued amortization.

Property Value Subject to Final Liquidation

Before any estimate can be made of the annual sum required for the liquidation of future losses that will be caused by the final abandonment of the property and business of Lone Star Gas Company now in service as an agency for the production and transportation of natural gas, a determination must first be made of the values as of this date which will be lost on final abandonment and for the liquidation of which no reserve accrual has otherwise been provided.

The measure of this future loss is present value as distinguished from original or historic cost. The predominant factor in the determination of the present value of a property and business as of any given date is the reproduction cost of this property and business less the decrement in service value that has taken place in that portion of the

property subject to depreciation. The reproduction cost of the property of Lone Star Gas Company as of January 1, 1933, less value lost by depreciation suffered up to this date, is, therefore, used as the basis for this estimate. The estimate of the reproduction cost of the property and business of Lone Star Gas Company used, is the estimate made by P. McDonald Biddison, E. A. Steinberger and Ed. C. Conn. A summary of this estimate is set out in the schedule—Summary of Reproduction Cost New—Property and Business of Lone Star Gas Company, January 1, 1933.

Included in this estimate of the cost of reproduction are certain major property items for which complete retirement has been provided in the reserve accruals heretofore set up. These property items and the estimated reproduction cost of each are as follows:

[fol. 9564] Item	Reproduction Cost
Leaseholds—Developed	\$2,681,689
Leaseholds—Undeveloped	893,291
Gas Well Construction and Equipment*	3,894,317
Other production system Structures	9,450
Other production system Equipment	95,764
Measuring Station Structures—Well Lines	37,304
Measuring Station Equipment—Well Lines	130,223
Measuring Station Structures—Field Lines	3,474
Measuring Station Equipment—Field Lines	8,539
Measuring Station Structures—Transmission System	145,098
Other Structures—Transmission System	145,016
Measuring Station Equipment	402,068
Structures and Equipment—Compressor Stations	4,867,679
General Office Structure	321,438
Other General Structures	46,790
Other General Furniture and Fixtures	12,060
General Office Furniture and Fixtures	207,602
General Shop Equipment	104,000
General Tools	131,550
Automotive and Construction Equipment	423,718
Other Undistributed General Costs	860,644
Total Reproduction Cost	\$15,421,714

* Direct structural costs—Company owned wells.

Provision has been made for the complete retirement of the present value of developed leaseholds by means of a depletion unit applied to the estimated future annual withdrawals of gas from the calculated reserves embraced by these developed leaseholds. The value of undeveloped leaseholds will be retired in the same manner when these leaseholds pass from the classification—Undeveloped Leaseholds, to the classification—Developed Leaseholds. Should the undeveloped leaseholds be cancelled or surrendered, then cost to date of cancellation or surrender will be charged direct to operating expense as has been the accounting practice of Lone Star Gas Company.

Provision has also been made for the complete retirement of the present value of Gas Well Construction and Equipment by means of the application of a unit of production cost [fol. 9565] to the estimated future average annual production from company owned wells. The value of any producing gas wells drilled or purchased by the company in the future will also be completely retired by means of the same process.

Provision has also been made for the complete retirement of the property items—General Office Structure and Other General Structures by means of an amortization accrual which in its application is independent of the accrual rates set up to provide for the cost of current replacements and renewals and for the decline in per cent of new condition.

Provision has also been made for the complete retirement of practically all of the items included in Compressor Station Structures and Equipment by means of the accruals set up for the functional depreciation of the constituent elements of the property account.

Included in the estimate of the cost of reproduction are certain property items upon which no losses will be incurred incident to the final abandonment of the business of Lone Star Gas Company as an agency for the production and transportation of natural gas. These items consist of General Office Land and Other General Land. The other parcels of land owned by Lone Star Gas Company as of January 1, 1933, consisting largely of compressor station sites and measuring station sites would have little if any value if severed from their present utilization and are therefore not included in this classification.

Included in the estimate of the cost of reproduction are certain property groups that have relatively short service lives, that are mobile and may be utilized without loss in other classes of service. These items consist of Other Production System Equipment, Automotive Equipment, General Tools, General Shop Equipment and Office Furniture and Fixtures.

[fol. 9566] The total estimated reproduction cost of these specific property items for which no additional reserve accruals will be required to provide for loss of value on the final abandonment of the business of Lone Star Gas Company as an agency for the production and transportation of natural gas is set out in the following summary:

Property Items	Reproduction Cost
Leaseholds—Developed	\$2,681,689
Leaseholds—Undeveloped	893,291
Gas Well Construction and Equipment*	3,894,317
Other production system Structures	9,450
Other production system Equipment	95,764
Measuring Station Structures—Well Lines	37,304
Measuring Station Equipment—Well Lines	130,223
Measuring Station Structures—Field Lines	3,474
Measuring Station Equipment—Field Lines	8,539
Measuring Station Structures—Transmission System	145,098
Other Structures—Transmission System	145,016
Measuring Station Equipment	402,068
Structures and Equipment—Compressor Stations	4,867,679
General Office Structure	321,438
Other General Structures	46,790
Other General Furniture and Fixtures	12,060
General Office Furniture and Fixtures	207,602
General Shop Equipment	104,000
General Tools	131,550
Automotive and Construction Equipment	423,718
Other Undistributed General Costs	860,644
Measuring Station Land and Improvements—Transmission System	45,195
Other Transmission System land and Improvements	13,243
Land and Leaseholds including Improvements—Compressor Stations	63,267

Defendant's Exhibit No. 42—Continued

Property Items	Reproduction Cost
General Office Land	44,545
Other General Land	49,274
Working Capital	1,701,600
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Total Reproduction Cost New	\$17,338,838

*Includes \$860,644 for General Costs allocated to Gas Well Construction and Equipment.

In the calculation of the annual rate of reserve accrual required for various property items included in the property account of Lone Star Gas Company as of January 1, 1933, an annual allowance of one per cent per annum was set [fol. 9567] up as a part of the total annual accrual rate to provide for the future decline in per cent of new condition which would take place in these specific property items before a static per cent of new condition would ultimately be reached. This annual reserve accrual was not a continuous one but was limited in its application to the estimated period of time required for the effect of replacements, renewals and repairs to offset any further decline in per cent of new condition. Inasmuch as the loss in value below the value as of January 1, 1933, brought about by decline in per cent of new condition has been thus provided for in the current accrual rates, it is obvious that only the residual value represented by the value of the various property items after they have reached a static per cent of new condition will be the value which will be lost on final abandonment and which must be provided for by means of the amortization accrual set up for this specific purpose.

The weighted per cent of new condition of the physical property of Lone Star Gas Company as of January 1, 1933, as determined by P. McDonald Biddison was approximately 93 per cent. The application of an annual reserve accrual of one per cent to provide for the future decline in per cent of new condition of the specific property in service as of January 1, 1933, was extended over a period of fifteen years from January 1, 1933. The annual rate of reserve accrual of one per cent for fifteen years set up for the specific purpose of providing for future decline in per cent of new condition in certain property items taken in connection with

Mr. Biddison's determination of weighted per cent of new condition as of January 1, 1933, indicates that a residual value of approximately 78 per cent of the reproduction cost new of these specific items, less net salvable value on abandonment, should be provided for by means of an amortization accrual.

In this connection, attention should be directed to the fact that Mr. Biddison applied to General Undistributed Costs the same weighted per cent of new condition that he found for the physical property items and that in this estimate of the annual rate of reserve accruals required for various property items there has been included an annual accrual of one per cent to provide for the corresponding future decline in per cent of new condition applicable to General Undistributed Costs. This treatment of Undistributed General Costs requires that 78 per cent representing the residual value of these items after a static per cent of new condition has been reached should be amortized. Inasmuch as \$860,644 of Undistributed General Costs have been included in the account—Gas Well Construction and Equipment, the estimated reproduction cost new of Undistributed General Costs should be reduced by this amount. As previously set out, the complete retirement of the reproduction cost of Gas Well Construction and Equipment together with an allocation of \$860,644 for General Overheads has been provided for by means of a production unit applied to the estimated average annual production from company owned wells.

This discussion covers most of the adjustments in the reproduction cost estimate of the property and business of Lone Star Gas Company as of January 1, 1933, required to determine the value of the items to which an amortization accrual is applicable. The manner in which this determination has been made is set out in tabulation showing—Value of Property Items to be Amortized—Lone Star Gas Company, January 1, 1933.

Other Basic Factors

Three other factors which have not been covered by the [fol. 9569] foregoing discussion have a direct bearing upon the annual amortization rate. The most important of these factors is the period of time assigned for accumulation of the reserve. The second factor is the interest rate at which the annuity will be compounded upon a sinking fund basis.

The third factor is the amount of net salvable value that may be recovered upon the final abandonment of the property as an agency for the production and transportation of natural gas.

It is impossible to predict with accuracy the ultimate life of any company primarily engaged in the production and transportation of natural gas within a specific area of production and final delivery. Many contingencies may arise that will either lengthen or shorten the total life of such a business with reference to an estimate made at a given time and based upon a set of conditions existing at the date of estimate. This fact, however, does not remove the necessity for the provision of an accrual designed to liquidate an inevitable loss, nor does it eliminate from the current cost of service a proportionate part of this inevitable loss of physical and intangible values. The limitation governing the amount of accrual of this nature should be the reasonableness of the period of time assigned for its accumulation in view of all available data. In this estimate, a period of forty years from January 1, 1933, has been adopted as a reasonable period upon which to base the accruals of the annuity. Based upon the expected rate of average future withdrawals, the developed gas reserves of Lone Star Gas Company as of January 1, 1933, will have a life expectancy of twenty years. In view of all known facts, the adoption of an amortization period which is double the life expectancy of the present developed reserves is clearly within the rule of conservatism.

The annual interest rate upon which the annuity is computed [fol. 9570] is five per cent. An annuity designed for the purpose of liquidating a future loss must conform to certain definite specifications. Its principal sum must be safe throughout the period of accumulation. This principal sum must be subject to prompt liquidation without loss and the continuity of the interest payments must be assured. If any of these basic stipulations are not met, the accrual will be inadequate. It is not reasonable to assume that securities carrying a coupon rate higher than five per cent per annum will conform to these basic stipulations.

It is estimated that the net salvable value of the property of Lone Star Gas Company in service as of January 1, 1933, together with the renewals and replacements of this specific property during the forty year interim will be fifteen per cent of reproduction cost new as of January 1, 1933. This

estimate is based upon a careful analysis of the losses that will be incurred upon final abandonment, the cost of recovery of the materials salvaged and a liberal consideration for the residual value of the material recovered. In this connection, consideration must be given to the fact that this estimate is confined to the property in service as of January 1, 1933, and does not take into account any net capital additions that may be made during the future life of the property. The effect of the application of net salvable value to items subject to amortization is shown in Column E of the tabulation showing—Value of Items To Be Amortized—Lone Star Gas Company, January 1, 1933.

Calculation of Annual Amortization Accrual

From the foregoing basic data, the calculation of the annual amortization accrual resolves itself into the application of the annual percentage required for amortization over a forty year period upon a five per cent sinking fund [fols. 9571-9573] basis to the net value as of January 1, 1933, subject to amortization. The annual percentage for a forty year amortization accrual upon a five per cent sinking fund basis is .828 per cent. The total net value as of January 1, 1933, subject to amortization, was found to be \$42,332,672. The annual accrual required for the amortization of this amount upon a forty year sinking fund basis is \$350,515.

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[Vol. 9574]

Value of Property Items

Lone Star Gas

January 1,

Property Items

A

Production System Property:

Leaseholds—Developed.....	\$ 2,681,689.00	\$ 2,
Leaseholds—Undeveloped.....	893,291.28	
Gas Wells.....	4,057,020.15	3,
Other Production System Structures.....	9,450.29	
Other Production System Equipment.....	95,764.08	

Gathering System Property:

Well Lines:

Rights of Way.....	11,184.07	
Measuring Station Structures.....	37,304.09	
Measuring Station Equipment.....	130,222.96	
Line Equipment.....	1,329,447.00	

Field Lines:

Land.....	509.00	
Rights of Way.....	117,020.00	
Measuring Station Structures.....	3,474.00	
Measuring Station Equipment.....	8,539.00	
Line Equipment.....	3,496,999.00	

Transmission System Property:

Transmission Lines:

Measuring Station Land and Improvements.....	90,389.48	
Measuring Station Leaseholds and Improvements.....	9,270.32	
Other Land and Improvements.....	26,485.54	
Other Leaseholds and Improvements.....	2,267.21	
Rights of Way.....	1,124,980.69	
Measuring Station Structures.....	145,098.34	
Other Structures.....	145,016.29	
Measuring Station Equipment.....	402,067.98	
Line Equipment.....	28,524,682.40	

Compressor Station Property:

Main Line and Field Line Stations:

Land and Leaseholds, Including Improvements.....	126,534.22	
Structures and Equipment.....	4,867,679.03	4,8

General System Property:

General Office Land.....	44,545.00	
Other General Land.....	49,273.87	
General Office Structure.....	321,437.63	3

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Other General Structures.....	46,789.56	
Other General Furniture and Fixtures.....	12,059.97	
General Office Furniture and Fixtures.....	207,601.84	2
General Shop Equipment.....	104,000.27	1
General Tools.....	131,549.72	1
Automotive and Construction Equipment.....	423,717.82	4
General Telephone Equipment.....	370,464.12	
Final Engineering Records.....	765,690.35	

Total Direct Structural Costs.....\$50,813,515.57 \$14,5

Other Undistributed General Costs.....9,201,130.00 8

Preliminary Development and Organization Costs.....4,474,272.00

Going Value (Cost of Business Development).....7,792,888.00

Working Capital.....1,701,600.00

Total.....\$73,983,405.57 \$15,4

Column A—Reproduction Cost New.

Column B—Property Items for which complete retirement has been provided in Annual Accrual Rate.

Column C—Property Items on which no loss will be incurred on liquidation. (Note—A loss of fifty

Column D—Decline in per cent of new condition provided for (22 per cent) plus salvage value on a

Column E—Sum of Columns B, C and D.

Column F—Estimated net amount subject to amortization.

Twenty-two per cent applied to \$9,201,130 less \$860,644.

to be Amortized

Company

933

B	C	D	E	F
31,689.00	\$ 2,681,689.00	.....
23,291.28	893,291.28	.....
4,317.16	3,894,317.16	\$ 162,702.99
9,450.29	9,450.29	.....
95,764.08	95,764.08	.....
.....	11,184.07
37,304.09	37,304.09	.....
30,222.96	130,222.96	.....
.....	\$ 491,895.39	491,895.39	837,551.61
.....	509.00
.....	117,020.00
3,474.00	3,474.00	.....
8,539.00	8,539.00	.....
.....	1,293,889.63	1,293,889.63	2,203,109.37
.....	\$ 45,194.74	.....	45,194.74	45,194.74
.....	13,242.77	.....	13,242.77	9,270.32
.....	13,242.77
.....	2,267.21
5,098.34	145,098.34	1,124,980.69
5,016.29	145,016.29	.....
2,067.98	402,067.98	.....
.....	10,554,132.49	10,554,132.49	17,970,549.91
.....	63,267.11	.....	63,267.11	63,267.11
7,679.03	4,867,679.03	.....
.....	44,545.00	.....	44,545.00	.....
.....	49,273.87	.....	49,273.87	.....
1,437.63	321,437.63	.....
6,789.56	46,789.56	.....
2,059.97	12,059.97	.....
7,601.84	207,601.84	.....
4,000.27	104,000.27	.....
1,549.72	131,549.72	.....
3,717.82	423,717.82	.....
.....	137,071.72	137,071.72	233,392.40
.....	765,690.35
1,070.31	\$ 215,523.49	\$12,476,989.23	\$27,253,583.03	\$23,559,932.54
0,644.00	1,834,906.92*	2,695,550.92	6,505,579.08
.....	4,474,272.00
.....	1,701,600.00	.....	1,701,600.00	7,792,888.00
1,714.31	\$ 1,917,123.49	\$14,311,896.15	\$31,650,733.95	\$42,332,671.62

per cent is estimated for certain parcels of land.)
andonment (15 per cent.)

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[fol. 9577] Treatment of Undistributed General Costs in Connection With an Estimate of Annual Reserve Accounts

It has been the general custom of engineers in calculating reserve accruals to apply to General Undistributed Costs in reproduction cost estimates the weighted annual rate of reserve accrual found to be applicable to the reproduction cost estimate of the physical elements of the property usually styled Direct Structural Costs. In this connection, Undistributed General Costs include Administration and Legal Expenses During Construction, General Engineering Costs, General Supervision Costs, Taxes During Construction and Interest During Construction.

In the preceding sections of this report, a careful analysis has been made of the functions of the various reserve accruals set up for specific property items in service in the system of Lone Star Gas Company as of January 1, 1933. It is obvious that consistency requires that the reserve accruals set up for the General Undistributed Costs should be calculated in a manner that takes into consideration the manner in which the reserve accruals for specific property items have been determined and the manner in which charges would be made to the reserve account under the general plan that has been adopted.

For this purpose of illustration, the manner in which the annual rate of reserve accrual for Main Line Pipe was developed may be taken as a typical example of how annual rates for specific property items were determined. This annual rate was based upon the cumulative effect of the following factors:

1. The future decline in per cent of new condition.
2. The calculated rate of future replacements of pipe due primarily to the physical condition of the pipe.
- [fol. 9578] 3. The calculated rate of future replacements, removals and abandonments of pipe due primarily to changed operating conditions.
4. The future cost of major rehabilitation of Lines chargeable to reserve account.

With the exception of the cost of rehabilitation, these primary factors were in the first step of the investigation,

expressed in terms of the average future rate of occurrence. After certain adjustments, which took into account cost of replacements and salvable value of pipe replaced, this average future rate of occurrence was translated into an annual percentage of the reproduction cost of Main Lines. It was pointed out that the unit cost of replacements made piece-meal would be in excess of the unit cost based upon a wholesale reproduction cost estimate. With reference to the incurrence of General Undistributed Costs, the situation is reversed and practically all of the general costs which will be incurred in substantial amounts in wholesale reproduction will be negligible factors in connection with piece-meal replacements.

For this and for other reasons which readily suggest themselves, there is no relation between the necessary reserve accruals that are designed to provide for certain costs of replacements of physical property and the reserve accruals that are designed to provide for the ultimate loss of that proportionate part of reproduction cost represented by General Undistributed Costs.

In this report an effort has been made to fix the annual rate of reserve accrual for the various classes of property and the various elements of reproduction cost in a manner consistent with the methods used by Lone Star Gas Company in its current accounting practice and with the methods used in the determination of the present value of the property. Lone Star Gas Company makes practically no charges [fol. 9579] to the reserve account for Undistributed General Costs in connection with the cost of replacements for the reason as above stated—that these costs are actually incurred in a very limited amount in making current replacements. On the other hand, P. McDonald Biddison in fixing the per cent of new condition of the property reduced the reproduction estimate of Undistributed General Costs by an amount equal to the weighted reduction in per cent of new condition found in the depreciable physical property.

For these reasons, the annual rate of reserve determined for General Undistributed Costs has been confined to an allowance to cover a future decline in per cent of new condition corresponding to the estimated future decline in per cent of new of the depreciable property together with an amortization allowance designed to provide for the loss that will be incurred by reason of the final abandonment of the property as a whole.

[fol. 9580] Depletion Allowance—Gas Reserves

[fol. 9581] The value of the developed gas reserves of Lone Star Gas Company as of January 1, 1933, was determined upon the basis of the present value per M. cubic feet of the volume of recoverable gas contained in reservoirs under lease by the company and proven as to production by actual exploration and development.

The net value of these reserves as determined by D. A. Hulcy was \$2,681,689, and the volume of recoverable gas contained in these reserves as determined by J. H. Dunn was 367,362,084 M. cubic feet. The unit value of recoverable gas as of January 1, 1933, was, therefore, \$.0073 per M. cubic feet.

The withdrawals of each M. cubic feet of gas from these developed reserves will reduce the value as of January 1, 1933, by \$.0073 and this dissipation of a capital asset must be provided for by means of a reserve accrual.

As previously stated, the basic reason for the accrual of reserves to provide for the cost of current replacements and current capital losses rather than the use of direct operating charges, grows out of the fact that the use of the uniform reserve accrual eliminates the distortion of current operating charges and properly distributes the cost of service. In the discussion covering the development of the annual charges for Gas Well Construction and Equipment, it was shown that the annual withdrawal of gas from company owned wells, which withdrawals will effect a corresponding reduction in the capital asset—Developed Leaseholds, would be a variable factor which will materially increase with the passage of time. This increase in production by means of company owned wells and company owned gas reserves will increase without consideration of any increase in market demand.

After a careful analysis of all factors that will have a [fols. 9582-9584] bearing upon the future annual rate of withdrawal of gas from company owned wells and from company owned leaseholds it was estimated that the future average annual rate of withdrawal would be not less than 20,000,000 M. cubic feet. This average annual rate of withdrawal applied to the unit value of gas reserves, \$.0073 per

3196

M. cubic feet, results in an average annual depletion allowance of \$146,000.

[fol. 9585]

DEFENDANT'S EXHIBIT No. 43

Lone Star Gas Company

Current Quotations on Bonds and Other Senior Securities

Natural Gas, Manufactured Gas and Electric Utilities

Ed. C. Connor, Consulting Engineer, Dallas, Texas

Manufactured Gas Companies

Bonds and Other Senior Securities as of May 22, 1934

	Maturity Date	1934 High	1934 Low	Last Sale	Yield to Maturity
Binghamton Gas Works 1st 5s.....	38	101	95	101	4.70
Brooklyn Borough Gas Gen. & Ref. "A" 5s.....	67	101	99	100	5.00
Brooklyn Union Gas 1st Cons. 5s.....	45	111	106	111	3.72
Chicago Gas Light and Coke 1st 5s.....	37	105	98	105	3.24
Connecticut Coke Company 1st SF "A" 5s.....	48	99	92	99	5.05
Consolidated Gas Company of Baltimore 1st 5s.....	39	109	104	108	...
Consolidated Gas Company of New York Deb. 5.5s Deb. 4.5s.....	45	107	101	106	4.76
Consumers Gas Company 1st Assumed 5s.....	51	101	90	100	4.48
Harrisburg Gas Company 1st 5s.....	36	105	100	105	2.91
Koppers Gas and Coke Company SF Deb. 5s.....	70	105	100	105	5.67
Newark Consolidated Gas Company Cons. 5s.....	47	97	82	95	5.54
St. Pauls Gas Light Company Gen. 5s.....	48	110	103	110	4.14
Waterbury Gas Light Company 1st 4.5s.....	44	103	97	100	4.56
York Gas Company 1st 5s.....	58	102	98	102	4.23
Syracuse Gas Company 1st 5s.....	41	102	100	100	5.00
Grand Rapids Gas Light Company 1st 5s.....	46	109	102	109	4.05
Detroit City Gas Company 1st "A" 6s.....	39	103	97	103	4.22
Laclede Gas Light Company Ref. & Ext. 5s.....	47	101	84	100	6.00
Consolidated Gas El. Lt. & Pwr. (Balt.) 1st Ref. 5.5s. 1st Ref. & SF "G" 4.75s. 1st Ref. & SF "H" 5.50s. 1st Ref. & SF 4s.....	52	103	101	102	...
Boston Consolidated Gas Company Deb. 5s.....	69	103	102	102	4.32
Milwaukee Gas Light Company 1st 4.5s.....	70	108	105	108	4.17
Peoples Gas Light and Coke Company 1st Cons. 6s.....	81	107	103	106	4.34
Washington Gas & Coke Company 1st 5s.....	47	106	104	106	4.26
Portland Gas & Coke Company 1st & Ref. 5s.....	57	104	93	104	4.50
Portland (Me.) Gas Light Company 1st Ref. "A" 5s.....	43	111	101	111	4.57
Allentown Bethlehem Gas Company 1st SF 5.5s.....	60	106	101	106	7.00
Atlanta Gas Light Company 1st SF 5s.....	40	94	83	88	4.91
Atlantic City 1st SF 5s.....	50	101	98	101	5.02
King Lighting Company 1st Ref. 5s.....	54	106	103	106	4.93
Ogden Gas Company 1st 5s.....	47	100	95	100	4.52
	60	100	83	99	5.55
	54	108	103	106	...
	45	96	77	95	...

Defendant's Exhibit No. 43—Continued

Natural Gas Pipe Line and Distributing Companies
Bonds and Other Senior Securities as of May 22, 1934

[Vol. 9587]

	Maturity Date	1934 High	1934 Low	Last Sale	Yield to Maturity
Allegheny Gas Corporation 1st and Coll. SF (ww) 6.5s	43	11	8	*	....
American Natural Gas SF Deb. 6.5s	42	1	1	*	....
Appalachian Gas Corporation Conv. Deb. 6s	45	6	2	6*	....
Appalachian Gas Corporation Conv. Deb. "B" 6s	45	6	2	6*	....
West Virginia Gas Corporation 1st SF (ww) 6.5s	37	78	68	77	....
Ohio Valley Gas Corporation 1st SF (ww) 6.5s	43	57	37	55	....
Wayne United Gas Corporation 1st Conv. SF 6.5s	44	41	34	40*	....
Texas Gas Utilities 1st SF Exchangeable 6s	45	25	14	14*	....
Ohio Ky. Gas Co. 1st SF "A" (ww) 6.5s	43	22	17	22*	....
Cities Service Gas Company 1st Pipe Line 5.5s	42	68	46	64	....
Cities Service Gas Company 1st Pipe Line 6s	43	68	57	77	9.91
Little Rock Gas and Fuel Ref. 1st 6s	37	62	41	68	....
Columbia Gas and Electric Corporation Deb. 5s	52	89	69	85	6.32
Columbia Gas and Electric Corporation Deb. 5s	52	89	68	84	6.43
Columbia Gas and Electric Corporation Deb. 5s	61	98	66	84	6.21
Consolidated Gas Utilities Co. 1st and Coll. 6s	43	53	33	49	....
Consolidated Gas Utilities Co. Conv. Deb. 6.5s	43	13	7	9*	....
Southern Natural Gas Corporation 1st SF (wp) 6s	44	74	59	70	10.92
Southern Natural Gas Corporation 1st SF (x-p) 6s	44	74	60	70	10.92
Southern Natural Gas Corporation Conv. Deb. 6s	44	24	11	23*	....
Southwest Gas Utilities 1st Lien & Sec. (ww) 6.5s	43	17	9	15*	....
El Paso Natural Gas Company 1st SF 6.5s	43	69	66	69	12.05
El Paso Natural Gas Company Conv. Deb. 6.5s	43	55	35	55	....
Duquesne Gas Corporation 1st Conv. 6s	45	3	1	3*	....
Duquesne Gas Corporation Conv. Sec. SF 6.5s	35	1	1	1*	....
Hamilton Gas Company 1st SF Conv. "A" (ww) 6.5s	37	29	12	29*	....
Mississippi River Fuel 1st SF (ww) 6s	44	100	90	99	6.13
Mississippi River Fuel 1st SF 6s	44	99	89	97	6.53
Lone Star Gas Corporation 15 Yr. SF Deb. 5s	42	97	82	95	5.79
Houston Natural Gas Corporation 1st Coll. (ww) 6s	43	68	54	68	11.66
Houston Gulf Gas 1st and Col. SF "A" 6s	43	77	42	74	....

* Interest Defaulted

Natural Gas Pipe Line and Distributing Companies
Bonds and Other Senior Securities as of May 22, 1934

	1934 High	1934 Low	Last Sale	Yield to Maturity
Houston Gulf Gas Conv. Deb. (ww) 6.5s.	43	31	61	10.44
Oklahoma Natural Gas 1st SF "A" 6s.	46	63	79	11.13
Oklahoma Natural Gas 1st SF "B" 5s.	48	43	56	.....
Arkansas Western Gas Company 1st (ww) 5s.	39	32	40	.....
Ky. Fuel Gas 1st SF (ww) 6.5s.	42	1	3*	.....
Palmer Corporation 1st SF 6s.	38	85	100	6.00
Rio-Grande Valley Gas Company 1st SF "A" 7s.	37	23	39	.....
South Texas Gas 1st Coll. SF "A" (ww) 6.5s.	38	74	94	8.29
Southern Gas Utilities 1st SF "A" (vw) 6.5s.	39	58	84	10.42
Southern Gas Company 1st SF 6.5s.	35	96	101	5.79
Southern Gas Company SF Deb. "A" 6.5s.	36	90	97	6.50
Southern Union Gas Company 1st Coll. "A" 6.5s.	39	14	20*	.....
Southern United Gas Company 1st Lien SF "A" (ww) 6s.	37	5	7*	.....
Southwest Gas Company SF (ww) 6.5s.	37	25	37	.....
Southwestern Natural Gas Company 1st Conv. SF 6s.	45	34	54	.....
Stamford and Western 1st SF 7s.	36	89	98	6.38
New Orleans Public Service 1st & Ref. "A" 5s.	52	41	61	9.52
1st & Ref. "B" 5s.	55	40	60	9.27
General Lien SF 4.5s.	35	36	53	.....
Income "A" 6s.	49	25	41	.....
San Antonio Public Service 1st & Ref. "A" 6s (G. & E.)	52	71	96	6.32
San Antonio Public Service 1st & Ref. "B" 5s (G. & E.)	58	65	88	5.92
Memphis Power and Light Company 1st and Ref. "A" 5s.	48	70	92	5.87
Dayton Power and Light 1st & Ref. 5s (G. & E.)	41	102	107	3.80
Oklahoma Gas and Electric 1st 5s.	50	73	93	5.60
Oklahoma Gas and Electric Deb. 6s.	40	66	88	2.61
Dallas Gas Company 1st SF 6s.	41	95	101	5.51
County Gas Company 1st 5s.	46	89	88	6.39
Texas Cities Gas Company 1st 5s.	48	51	55	.....
Municipal Gas Company 1st "A" 6s.	35	61	55	.....
Albuquerque Natural Gas Company Conv. Deb. 6.5s.	40	82	94	.....
Kansas City (Mo.) Gas Company 1st 5s.	46	22	19*	.....
Kansas City (Mo.) Gas Company 1st "A" 6s.	42	73	94	5.70
Montana Cities Gas 1st SF "A" 7s.	37	86	96	5.53
	72	48	72	.....

* Interest Defaulted.

Defendant's Exhibit No. 43—Continued

[fol. 9589-9590]

Electric Companies in Texas

Bonds and Other Senior Securities as of May 22, 1934

		Maturity Date	1934 High	1934 Low	Last Sale	Yield to Maturity
Dallas Power and Light	1st SF "A" 6s	49	110	104	108	5.18
	1st SF "B" 6.5s	49	109	105	108	6.90
	1st SF "C" 5s	52	105	99	105	4.61
	1st SF "D" 5.5s	54	103	95	103	5.25
Texas Power and Light	1st SF 5s	37	103	89	102	4.21
	1st & Ref. 5s	56	92	67	91	5.69
	Debenture "A" 6s	2022	87	56	86	6.99
Houston Light & Power	1st Lien and Ref. "A" 5s	53	104	93	103	4.73
	1st Lien and Ref. "D" 4.5s	78	99	82	98	4.57
	1st Lien and Ref. "E" 4.5s	81	99	81	98	4.57

[fol. 9591] DEFENDANT'S EXHIBIT No. 44

[fol. 9592] Five Year Summary Gas Transportation

Lone Star Gas Company

Year	Transported from and thru Oklahoma	Total Transported	Percent Transported thru Oklahoma
1929.....	14,683,790 M.	44,625,913 M.	32.9
1930.....	13,040,072 M.	42,472,195 M.	30.7
1931.....	9,032,390 M.	34,703,119 M.	26.0
1932.....	9,742,751 M.	32,967,130 M.	29.6
1933.....	7,323,991 M.	31,385,293 M.	23.3

Weighted Average Percent Transported thru Oklahoma..... 28.9

[fol. 9593] Year 1929

Gas Transported by Lone Star Gas Company

Produced and Purchased in Oklahoma: M.C.F.

Chickasha and Nellie Field.....	2,981,976
Duncan	936,554
Loco	474,937
Fox	3,393,734
Robberson	997,965

Total Oklahoma Fields.....	8,785,166
Total Oklahoma Deliveries (See Note I)	726,990

Net Oklahoma Gas Trans- ported into Texas.....	8,058,176
Produced and Purchased Shamrock.....	7,004,965
Total Delivery Shamrock Gas in Okla. (See Note II)	379,351

Net Shamrock Gas Trans- ported thru Oklahoma.....	6,625,614
Total Gas Transported from & thru Oklahoma	14,683,790
Total Gas Transported from all Sources	44,625,913
Percent of Total Transported from & thru Oklahoma	32.9%

Note I—Davis, Elmore, Marietta, Maysville, Paoli, Pauls Valley, Sulphur, Wayne, Wynnewood, Loco, Ryan, Temple, Walters, Waurika; Loco, Fox and Gas City compressor fuel and main line sales.

Note II—Hollis, Davidson, Frederick, Tipton, Snyder, Hollis Gasoline Plant fuel and shrinkage, and main line sales.

[fol. 9594].

Year 1930

Gas Transported by Lone Star Gas Company

Produced and Purchased in Oklahoma:

	M. C. F.
Chickasha and Nellie Fields . . .	2,074,735
Duncan Field	591,458
Loco Field	242,210
Fox Field	2,718,338
Robberson Field	835,201
Palacine Field	244,571
Total Oklahoma Fields	6,706,513
Total Oklahoma Deliveries (See Note I)	661,657
Net Oklahoma Gas Transported into Texas	6,044,856
Produced and Purchased Shamrock Field	7,380,845
Total Delivery Shamrock Gas in Okla. (See Note II)	385,629
Net Shamrock Gas Transported thru Oklahoma	6,995,216
Total Gas Transported from and thru Oklahoma	13,040,072
Total Gas Transported from all Sources	42,472,195
Percent of Total Transported from & thru Oklahoma	30.7%

Note I—Davis, Elmore, Marietta, Maysville, Paoli, Pauls Valley, Sulphur, Wayne, Wynnewood, Loco, Hastings, Ryan, Temple, Walters, Waurika; Loco, Fox, and Gas-City compressor fuel and main line sales.

Note II—Hollis, Davidson, Frederick, Tipton, Manitou, Snyder, Mountain Park, Hollis Gasoline Plant fuel and shrinkage, and main line sales.

Defendant's Exhibit No. 44—Continued

[fol. 9595]

Year 1931

Gas Transported By Lone Star Gas Company

Produced and Purchased in Oklahoma:

	M.C.F.
Chickasha and Nellie Fields	1,058,047
Duncan Field	651,557
Loco "	153,940
Fox	1,521,928
Robberson Field	296,081
Palacine	41,483
Total Oklahoma Fields	3,723,036
Total Oklahoma Deliveries (See Note I)	582,620
Net Oklahoma Gas Transported into Texas	3,140,416
Produced and Purchased Shamrock Field	6,249,635
Total Delivery Shamrock Gas in Okla. (See Note II)	357,661
Net Shamrock Gas Transported thru Oklahoma	5,891,974
Total Gas Transported from & thru Oklahoma	9,032,390
Total Gas Transported from all Sources	34,703,119
Per cent of Total Transported from & thru Oklahoma	26.0%

Note I—Davis, Elmore, Marietta, Maysville, Paoli, Pauls Valley, Sulphur, Wayne, Wynnewood, Loco, Hastings, Ryan, Temple, Walters, Waurika; Loco, Fox and Gas City Compressor fuel and main line sales.

Note II—Hollis, Davidson, Frederick, Tipton, Manitou, Snyder, Mountain Park, Hollis Gasoline Plant fuel and shrinkage, and main line sales.

Defendant's Exhibit No. 44--Continued

[fol. 9596]

Year 1932

Gas Transported By Lone Star Gas Company

Produced and Purchased in Oklahoma:

	M.C.F.
Chickasha and Nellie Fields	811,993
Duncan Field	216,455
Loco "	114,574
Fox "	1,041,899
Robberson Field	313,633
Palacine "	43,392
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Total Oklahoma Fields	2,541,946
Total Oklahoma Deliveries (Note I) ...	483,694
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Net Oklahoma Gas Transported into Texas	2,058,252
Produced and Purchased Shamrock Field	8,055,747
Total Delivery Shamrock Gas in Okla. (See Note II)	371,248
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Net Shamrock Gas Transported thru Oklahoma	7,684,499
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Total Gas Transported from & thru Oklahoma	9,742,751
Total Gas Transported from all Sources	32,967,130
Per cent of Total Transported from & thru Oklahoma	29.6%

Note I—Davis, Elmore, Marietta, Maysville, Paoli, Pauls Valley, Sulphur, Wayne, Wynnewood, Loco, Hastings, Ryan, Temple, Walters, Waurika; Loco, Fox and Gas City Compressor fuel and main line sales.

Note II—Hollis, Davidson, Frederick, Tipton, Manitou, Snyder, Mountain Park, Hollis Gasoline Plant fuel and shrinkage, and main line sales.

Defendant's Exhibit No. 44—Continued

[fol. 9597]

Year 1933

Gas Transported By Lone Star Gas Company

Produced and Purchased in Oklahoma:

	M.C.F
Chickasha and Nellie Fields	734,629
Duncan Field	54,312
Loco "	22,580
Fox "	653,527
Robberson Field	207,807
Palacine "	17,487
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Total Oklahoma Fields	1,690,342
Total Oklahoma Deliveries (See Note I)	479,551
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Net Oklahoma Gas Transported into Texas	1,210,791
Produced and Purchased Shamrock Field	6,448,138
Total Delivery Shamrock Gas in Okla. (See Note II)	334,938
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Net Shamrock Gas Transported thru Oklahoma	6,113,200
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Total Gas Transported from & thru Oklahoma	7,323,991
Total Gas Transported from all Sources	31,385,293
Per cent of Total Transported from & thru Oklahoma	23.3%

Note I—Davis, Elmore, Marietta, Maysville, Paoli, Pauls Valley, Sulphur, Wayne, Wynnewood, Loco, Hastings, Ryan, Temple, Walters, Waurika; Loco, Fox and Gas City Compressor fuel and main line sales.

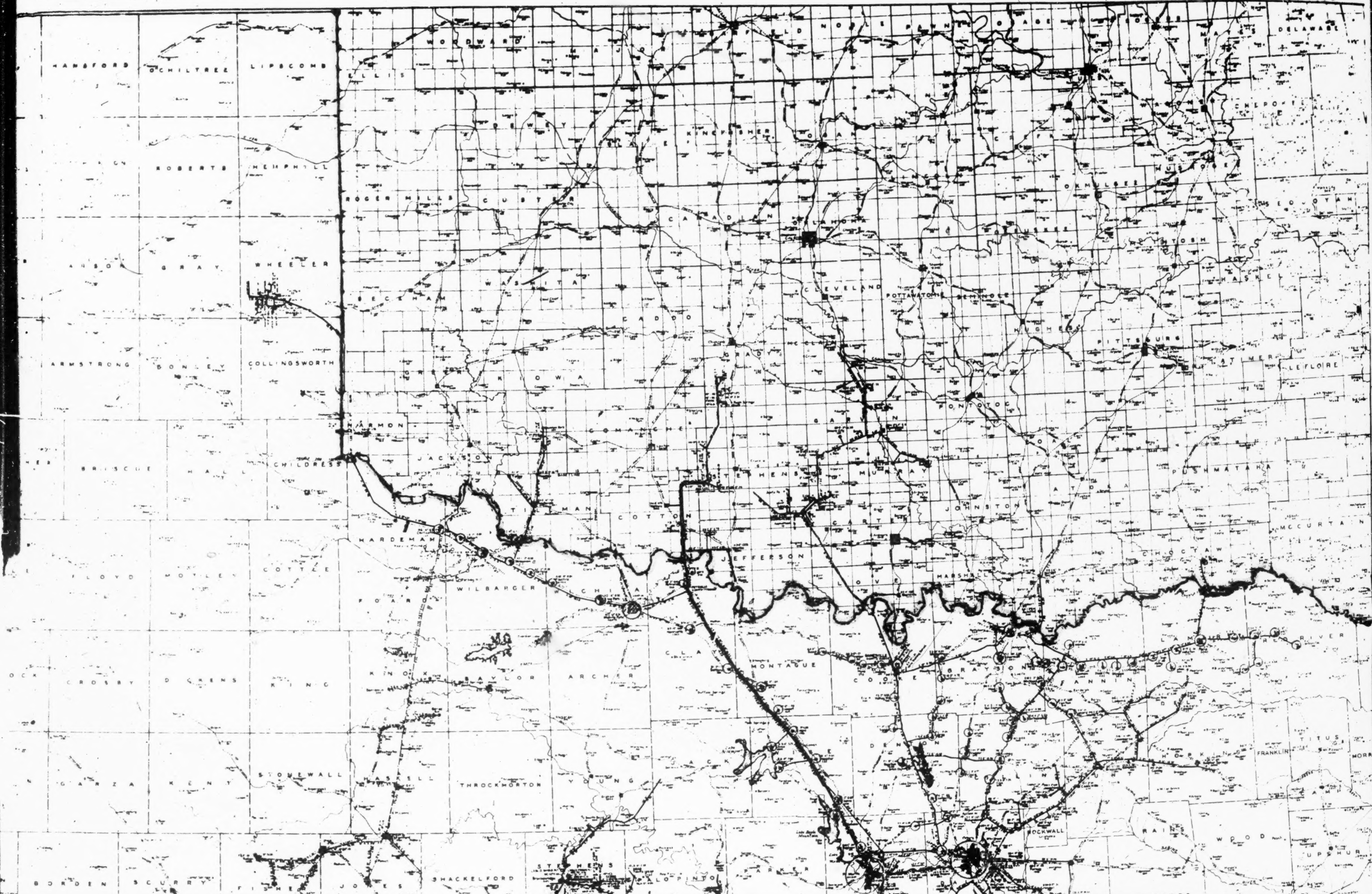
Note II—Hollis, Davidson, Frederick, Tipton, Manitou, Snyder, Mountain Park, Hollis Gasoline Plant fuel and shrinkage, and main line sales.

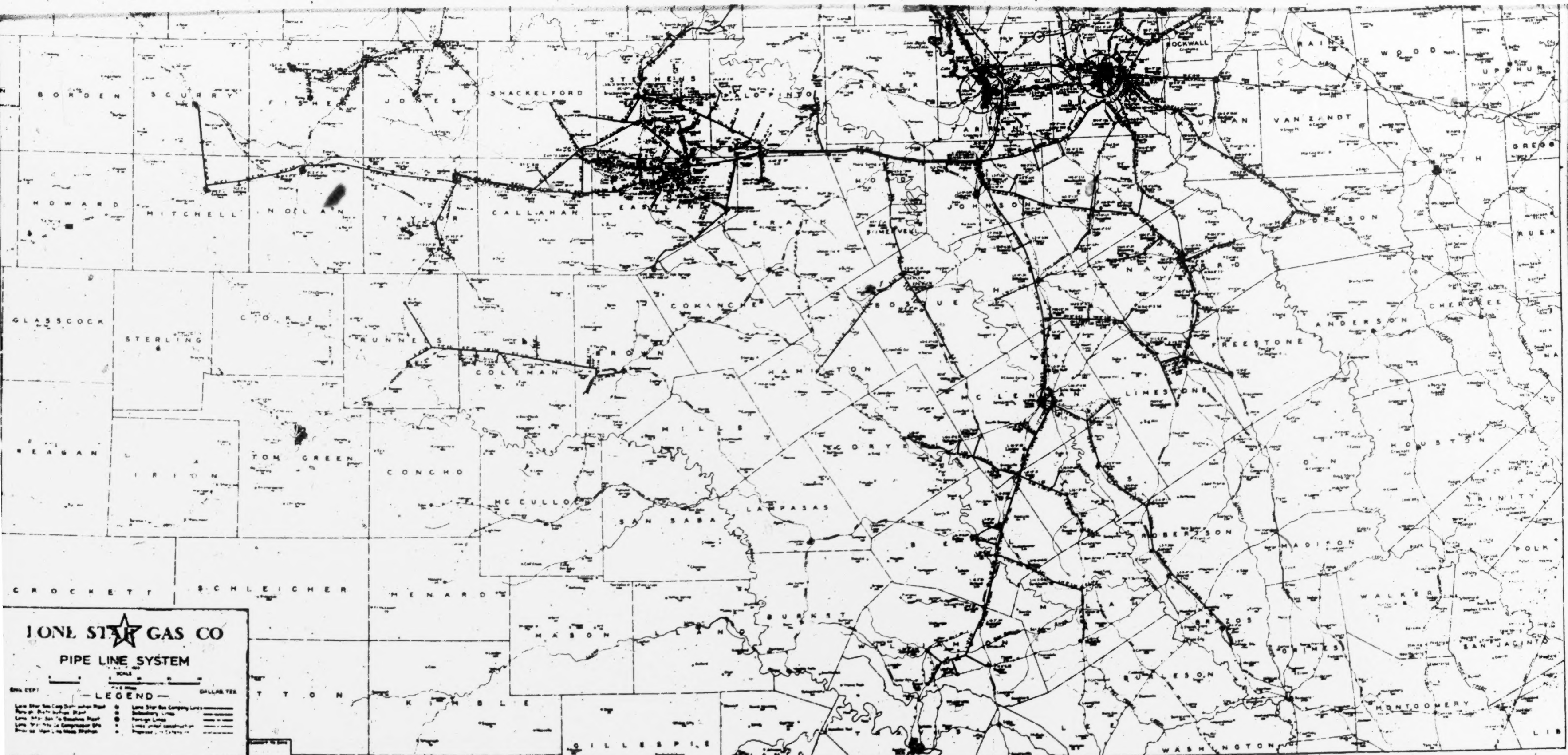
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LONE STAR GAS CO

PIPE LINE SYSTEM

0 1 2 3 4 5 6 7 8 9 10

MILES

0 1 2 3 4 5 6 7 8 9 10

DALLAS FEET

●

Line Star Gas Company Main Line

●

Line Star Gas Company Branch Line

●

Line Star Gas Company Feeder Line

●

Line Star Gas Company Collector Line

●

Line Star Gas Company Distribution Line

●

Line Star Gas Company Gas Lift Station

●

Line Star Gas Company Compressor Station

●

Line Star Gas Company Meter Station

●

Line Star Gas Company Valve Station

●

Line Star Gas Company Wellhead

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Line Star Gas Company Pipeline Crossing

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Line Star Gas Company Pipeline Intersection

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Line Star Gas Company Pipeline Termination

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Line Star Gas Company Pipeline Construction

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Line Star Gas Company Pipeline Abandonment

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Line Star Gas Company Pipeline Relocation

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Line Star Gas Company Pipeline Expansion

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Line Star Gas Company Pipeline Modification

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Line Star Gas Company Pipeline Replacement

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Line Star Gas Company Pipeline Upgrade

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Line Star Gas Company Pipeline Repair

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Line Star Gas Company Pipeline Compliance

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Line Star Gas Company Pipeline Regulation

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Line Star Gas Company Pipeline Legislation

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Line Star Gas Company Pipeline Policy

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Line Star Gas Company Pipeline Strategy

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Line Star Gas Company Pipeline Vision

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Line Star Gas Company Pipeline Mission

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Line Star Gas Company Pipeline Values

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Line Star Gas Company Pipeline Principles

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Line Star Gas Company Pipeline Standards

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Line Star Gas Company Pipeline Best Practices

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Line Star Gas Company Pipeline Innovation

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Line Star Gas Company Pipeline Research

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Line Star Gas Company Pipeline Development

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Line Star Gas Company Pipeline Implementation

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Line Star Gas Company Pipeline Evaluation

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Line Star Gas Company Pipeline Monitoring

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Line Star Gas Company Pipeline Reporting

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Line Star Gas Company Pipeline Communication

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Line Star Gas Company Pipeline Collaboration

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Line Star Gas Company Pipeline Partnership

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Line Star Gas Company Pipeline Alliance

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Line Star Gas Company Pipeline Consortium

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Line Star Gas Company Pipeline Network

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Line Star Gas Company Pipeline System

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Line Star Gas Company Pipeline Infrastructure

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Line Star Gas Company Pipeline Assets

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Line Star Gas Company Pipeline Liabilities

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Line Star Gas Company Pipeline Risks

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Line Star Gas Company Pipeline Opportunities

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Line Star Gas Company Pipeline Challenges

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Line Star Gas Company Pipeline Solutions

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Line Star Gas Company Pipeline Outcomes

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Line Star Gas Company Pipeline Impacts

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Line Star Gas Company Pipeline Benefits

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Line Star Gas Company Pipeline Costs

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Line Star Gas Company Pipeline Revenue

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Line Star Gas Company Pipeline Profit

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Line Star Gas Company Pipeline Loss

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Line Star Gas Company Pipeline Equity

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Line Star Gas Company Pipeline Debt

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Line Star Gas Company Pipeline Capital

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Line Star Gas Company Pipeline Investment

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Line Star Gas Company Pipeline Financing

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Line Star Gas Company Pipeline Funding

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Line Star Gas Company Pipeline Revenue

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Line Star Gas Company Pipeline Profit

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Line Star Gas Company Pipeline Equity

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Line Star Gas Company Pipeline Financing

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Line Star Gas Company Pipeline Funding

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[fols. 9600-9605] DEFENDANT'S EXHIBIT No. 45

Lone Star Gas Company

Analysis of Transportation and Sale of Gas Produced in
Central West Texas and Gas Produced in Shamrock Area
and Southern Oklahoma

Year 1933

E. F. Schmidt. Ed. C. Connor

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[fol. 9607]

Part I

[fol. 9608] Analysis of Specific Gravity Records and Determination of Percentages of West Texas Gas

[fol. 9609] Explanation of Specific Gravity Method for Determining Percentages of West Texas Gas Transported in Lone Star Gas Company's Lines During the Year 1933

The specific gravity of gas is the ratio of its density to the density of air when both the air and gas are under the same conditions of temperature and pressure. Specific gravity, therefore, is a measure of the relative weights of gases. A gas having a specific gravity of .6 weighs $\frac{6}{10}$ as much as an equal quantity of air.

When two fluids (all gases are fluids) of known weights are mixed, and the weight of the mixture is known, the percentage of each of the two components present in the mixture can be determined by simple proportion. For instance, if the weight of a gallon of alcohol and the weight of a gallon of water is known, and the weight of a gallon of a mixture of alcohol and water is also known, the respective percentages of alcohol and water in the mixture can be determined. Also, if the specific gravity of two different gases is known, and the specific gravity of a mixture of the two gases is known, the percentage of each which must be in the mixture to give the specific gravity of the mixture can likewise be determined.

The problem of determining the percentage of West Texas gas in the lines of Lone Star Gas Company by the above method was simplified by the fact that there is a wide divergence between the specific gravity of gas taken from the Oklahoma and Shamrock Fields combined and the specific gravity of gas taken from West Texas Fields. The accuracy of the calculations used herein was increased by [fol. 9610] reason of this fact. For all practical purposes the specific gravity of Oklahoma and Shamrock gas averages .63, and no gas taken from either of these sources varies very slightly from .63 specific gravity. The slight variations which do occur are plus and minus and tend to equalize, and .63 therefore represents a fair average for the specific gravity of gas from these two sources. A continuous record of the specific gravity of gas from West Texas Fields is maintained at all times and the average for the year 1933

was .825. Any mixture of gases with a specific gravity between .63 and that recorded for West Texas gas must contain some percentage of West Texas gas.

Lone Star Gas Company maintains and operates recording gravimeters which make a continuous record of specific gravity of gases in its main lines at all times. When the recorded specific gravity of the gas in any of these lines during the year 1933 was more than .63, (which showed that the mixture contained West Texas gas) the percentage of West Texas gas was obtained by dividing the difference between .63 and the actual specific gravity by the difference between .63 and the specific gravity of West Texas gas.

As an example: if the recorded specific gravity of the gas in a line was .70 and the specific gravity of West Texas gas was .83, the calculation would be as follows: $.70 - .63$ divided by $.83 - .63$ equals 35 per cent West Texas gas. In order to furnish a rapid means of determining these percentages of West Texas gas, a graph for each month was prepared which shows the percentages corresponding to different specific gravities. By reading directly from the graphs the trouble of making the calculations was avoided.

[fol. 9611] Line B—Per Cent West Texas Gas of Total
Used and Unaccounted for 1933

Gas was measured into the North end of Line B through Meter #12 and into and out of the South end through Meter #17. All West Texas gas into the line had to come into the South end by way of Line C.

During January, February, March, April and November there was practically no gas delivered from Line C into Line B; consequently no West Texas gas was transported in the line. During the remainder of the year gas was delivered into the line from the South end, a part of which was West Texas gas. Since the North Station at Fort Worth obtained its gas from Line C at the same point as did Line B, the percentage of West Texas gas delivered into line B was the same as that which was delivered to the North Station at the same time.

During the months of May, June, July, August, September, October and December the daily amount of gas used and unaccounted for in Line B was determined by subtracting the outlet volume from the inlet volume. From the daily volume used and unaccounted for there was sub-

acted the daily volume into the North end. The remainder was the daily amount delivered into the South end from Line C, and the daily volumes were added to obtain the total volume into the South end for each month. By applying the same percentages of West Texas gas as was delivered to the North Fort Worth Station, the volume of West Texas gas delivered by months into Line B was obtained.

The Trinity Portland Cement Company secured its gas [Vol. 9612] from Line B, which gas comes off relatively close to the inlet meter #17 at the South end of Line B, and downstream from the inlet. The volume of West Texas gas to the Trinity Portland Cement Company, having previously been determined, was deducted from the total volume of West Texas gas into Line B by months, and the result was the net volume of west Texas gas delivered to Line B by months. The ratio of this volume to the total used and unaccounted for gave the percentage of the total gas in the line which came from West Texas Fields. Following is a tabulation of these percentages by months for the year 1933.

[fol. 9613]

Defendant's Exhibit No. 45—Continued

Line B

Per Cent West Texas Gas of Total Used and Unaccounted For

1933	Month	M. C. F. North	% West Texas	M. C. F. West Texas	Less to T.P.C. Co.	Net M.C.F. West Texas	Total M.C.F.	Net % Joshua
	January.....							
	February.....							
	March.....							
	April.....	10,483	92.00	9,644		9,644	14,229	67.78
	May.....	6,766	97.00	6,563		6,563	7,510	87.39
	June.....	1,733	100.00	173		173	3,392	5.10
	July.....	54,180	99.00	53,638	34,107	19,531	54,322	35.95
	August.....	93,039	83.00	77,222	89,703	-12,481	11,418	36.01
	September.....	4,781	86.00	4,112		4,112	11,418	36.01
	October.....							
	November.....	9,628	34.00	3,274		3,274	9,628	34.00
	December.....							
	Total.....	180,610		154,626	123,810	30,816	100,499	

[fol. 9614] Line C—Per Cent West Texas Gas of Total
Transported—1933

Gas was delivered out of Line C during the year 1933 at the following points of measurement:

Central City Gate Station—Dallas.
Hudnall City Gate Station—Dallas.
North City Gate Station—Fort Worth.
South End—Line B.
South End—Line F.
North End—Line C-2.
Marathon Oil Company—Refinery—Fort Worth.
Irving City Gate Station.

All of the West Texas gas reaching these points of measurement was transported through Line C. The actual volume of West Texas gas delivered to these points by months was determined from the specific gravity at each point. The total gas delivered in each case was determined from meter records at each point.

The ratio of the total West Texas gas delivered from the line to the grand total delivered from the line gave the percentage of the grand total which came from West Texas Fields. Percentages of West Texas gas delivered to each of the above points of discharge are shown in separate reports for each elsewhere in this exhibit.

Following is a tabulation of these percentages:

[fol. 9615]

Line C

Per Cent West Texas Gas of Total Transported—1933

Month	Total Millions	Total West Texas Millions	Per cent West Texas
January.....	1,282	718	56.00
February.....	1,229	608	49.00
March.....	1,092	578	53.00
April.....	902	681	76.00
May.....	804	766	95.00
June.....	749	721	96.00
July.....	693	689	99.00
August.....	743	745	100.00
September.....	809	695	86.00
October.....	821	745	91.00
November.....	1,227	633	52.00
December.....	1,347	674	50.00
Total.....	11,698	8,253	

[fol. 9616] Central and Hudnall City Gate Stations—Dallas
—Per Cent West Texas Gas in Total Delivered—1933

A continuous record of the specific gravity for the year 1933 was made at the point of measurement. During the months of January, February, March, October, November and December the specific gravity varied to such an extent that it was necessary to take daily averages of the specific gravity and determine the corresponding percentage of West Texas gas from the graphs by days. These percentages were applied to the daily total volumes to obtain the daily volumes of West Texas gas, which were totaled to obtain the volume of West Texas gas for each month. The total volume of West Texas gas was divided by the total of all the gas to obtain the percentage of West Texas gas in the total volume delivered.

For the remaining months of the year the specific gravity did not vary enough to warrant using daily averages. The monthly average specific gravity was used to determine from the graphs the per cent of West Texas gas in the total delivered. A tabulation of these percentages by months for the year 1933 for both stations follows:

[fol. 9617]

Central City Gate Station—Dallas

Per Cent West Texas Gas in Total Delivered—1933

Month	Total Millions	Total West Texas Millions	Per cent West Texas
January.....	464	306	66.00
February.....	536	288	54.00
March.....	400	256	64.00
April.....	319	290	91.00
May.....	262	257	98.00
June.....	244	234	96.00
July.....	236	236	100.00
August.....	239	239	100.00
September.....	238	207	87.00
October.....	286	264	92.00
November.....	459	285	62.00
December.....	494	280	57.00
Total.....	4,177	3,142	

In working up the above data volumes in M. C. F. were used whereas only the nearest number of millions is shown in the above tabulation. Hence, some of the above figures may not check exactly.

Defendant's Exhibit No. 45—Continued

[fol. 9618]

Hudnall City Gate Station—Dallas

Per Cent West Texas Gas of Total Delivered—1933

Month	Total Millions	Total West Texas Millions	Per cent West Texas
January.....	86	50	58.00
February.....	99	38	38.00
March.....	60	29	48.00
April.....	23	22	94.00
May.....	6	6	93.00
June.....	.....	.....	.....
July.....	.....	.....	.....
August.....	.....	.....	.....
September.....	.....	.....	.....
October.....	13	11	87.00
November.....	65	33	52.00
December.....	89	42	47.00
Total.....	<u>441</u>	<u>231</u>	

In working up above volumes in M. C. F. were used, whereas only the nearest number of millions is shown in the above calculation. Hence, some of the above figures may not check exactly.

[fol. 9619] North Station—Fort Worth—Per Cent West Texas Gas of Total Delivered—1933

A continuous record of the specific gravity of the gas for the year 1933 was made at the point of measurement. During the months of January, February, March, April, October, November and December the specific gravity varied to such an extent that it was necessary to take daily averages of the specific gravity and determine from the graphs the corresponding percentage of West Texas gas by days. These percentages were applied to the daily total volumes to determine the volume of West Texas gas for each day, which were totaled to get the total volume of West Texas gas for each month. These totals were divided by the total of all gas to obtain the per cent of West Texas gas in the total delivered.

For the remaining months of the year the specific gravity did not vary enough to warrant the use of daily averages and the monthly average specific gravity was applied to the graphs to obtain the per cent of West Texas gas in the total delivered.

Following is a tabulation of the percentages by months for the year 1933:

Defendant's Exhibit No. 45—Continued

[fol. 9620]

North Station—Fort Worth

Per Cent West Texas Gas in Total Delivered—1933

Month	Total Millions	Total West Texas Millions	Per cent West Texas
January.....	459	148	32.00
February.....	469	115	25.00
March.....	401	134	33.00
April.....	343	188	55.00
May.....	318	292	92.00
June.....	303	294	97.00
July.....	311	311	100.00
August.....	300	297	99.00
September.....	305	253	83.00
October.....	328	282	86.00
November.....	446	134	30.00
December.....	499	168	34.00
Total.....	4,482	2,616	

In working up the above data volumes in M. C. F. were used, whereas in the tabulation above only the nearest number of millions is shown. Hence, some of the above figures may not check exactly.

[fol. 9621] Irving, Texas, City Gate Per Cent West Texas
Gas in Total Delivered—1933

The gas delivered to Irving came off Line C at about the same point as did the gas into Line C-2. Therefore the same percentages of West Texas gas was used as was determined for Line C-2 in order to obtain the percentage of West Texas gas in the total delivered. Following is a tabulation by months for the year 1933.

[fol. 9622]

Irving, Texas, City Gate

Per Cent West Texas Gas in Total Delivered—1933

Month	Total M.C.F.	Total West Texas M.C.F.	Per cent West Texas
January.....	1,619	1,166	72.00
February.....	1,512	983	65.00
March.....	1,202	817	68.00
April.....	945	803	85.00
May.....	497	477	96.00
June.....	410	394	96.00
July.....	346	346	100.00
August.....	465	456	98.00
September.....	632	550	87.00
October.....	729	688	93.00
November.....	982	628	64.00
December.....	1,019	693	68.00
Total.....	10,358	8,001	

[fol. 9623] Marathon Oil Company—Fort Worth Plant—
Per Cent West Texas Gas in Total Delivered—1933

The gas delivered to the Marathon Oil Company came from Line C at about the same point as did gas to North Station, Fort Worth, and the same percentages of West Texas gas as was determined for the North Station was used on gas delivered to the Marathon Oil Company. Following is a tabulation by months for the year 1933.

[fol. 9624] Marathon Oil Company—Fort Worth
Per Cent West Texas Gas in Total Delivered—1933

Month	Total M.C.F.	Total West Texas M.C.F.	Per cent West Texas
January.....	3,568	1,142	32.00
February.....	2,821	705	25.00
March.....	2,771	914	33.00
April.....	2,760	1,518	55.00
May.....	2,835	2,608	92.00
June.....	3,155	3,060	97.00
July.....	3,464	3,464	100.00
August.....	1,451	1,436	99.00
September.....	1,932	1,604	83.00
October.....	3,221	2,770	86.00
November.....	2,000	600	30.00
December.....	4,492	1,527	34.00
Total.....	34,470	21,348	

[fol. 9625] Trinity Portland Cement Company—Dallas
Plant—Per Cent West Texas Gas of Total Delivered—
1933

The specific gravity of this gas was not recorded during the year 1933. The gas delivered to the Trinity Portland Cement Company came from Line C-2 and the same per cent was used for West Texas gas in the total as was determined for Line C-2. Following is a tabulation of the percentages by months for the year 1933.

[fol. 9626] Trinity Portland Cement Company—Dallas
Per Cent West Texas Gas of Total Delivered—1933

Month	Total M.C.F.	Total West Texas M.C.F.	Per cent West Texas
January.....	1,059	762	72.00
February.....	1,474	958	65.00
March.....	13,853	9,420	68.00
April.....	33,325	28,326	85.00
May.....	40,917	39,280	96.00
June.....	48,740	46,790	96.00
July.....	1,710	1,710	100.00
August.....	1,291	1,265	98.00
September.....	5,793	5,040	87.00
October.....	614	571	93.00
November.....	854	547	64.00
December.....	2,105	1,431	68.00
Total.....	151,735	136,100	

[fol. 9627] Trinity Portland Cement Company—Fort Worth
—Per Cent West Texas Gas in Total Delivered—1933

This plant was in actual operation during August and September only. The average specific gravity for each day of operation was determined from a recording gravitometer located at the point of measurement of the gas. The corresponding percentage of West Texas gas was determined from the graphs for each day and added in order to secure the total volume for each month. These monthly totals were divided by the total volume of gas delivered during the month to obtain the percentage of West Texas gas in the total.

Following is a tabulation of results by months:

[fol. 9628] Trinity Portland Cement Company—Fort Worth Plant
Per Cent West Texas Gas in Total Delivered—1933

Month	Total M.C.F.	Total West Texas M.C.F.	Per cent West Texas
January.....	502	.....	.....
February.....	363	.....	.....
March.....	191	.....	.....
April.....	103	.....	.....
May.....	74	.....	.....
June.....	70	.....	.....
July.....	87	.....	.....
August.....	41,594	34,107	82.00
September.....	190,857	89,703	47.00
October.....	94	.....	.....
November.....	206	.....	.....
December.....	247	.....	.....
Total.....	234,388	123,810	

[fol. 9629] Line C-2—Per Cent West Texas Gas of Total
Transported—1933

A Continuous record of the specific gravity of gas transported was made at the point of measurement of gas into the line. During the months of January, February, March, April, October, November and December the specific gravity varied to such an extent that it was necessary to take daily averages of the specific gravity and determine the corresponding percentage of West Texas gas from the graphs by days. These daily percentages were multiplied by the daily total volumes to obtain the volume of West Texas gas by days and the daily figures added to get the monthly total for each month. The monthly total volume of West Texas gas divided by the monthly total volume

of all gas gave the percentage of West Texas gas for each month.

During the months of May, June, July, August and September the specific gravity was fairly constant for each month and the monthly average specific gravity was used to determine the percentage of West Texas gas from the graphs for those months.

Following is a tabulation for the year 1933:

[fol. 9630]

Line C-2

Per Cent West Texas Gas of Total Transported—1933

Month	Total Millions	Total West Texas Millions	Per cent West Texas
January.....	47	33	72.00
February.....	35	23	65.00
March.....	47	32	68.00
April.....	70	59	85.00
May.....	76	73	96.00
June.....	69	66	96.00
July.....	23	23	100.00
August.....	25	25	98.00
September.....	24	21	87.00
October.....	30	28	93.00
November.....	60	39	64.00
December.....	62	42	68.00
Total.....	568	464	

NOTE.—The above percentages in right hand column were obtained from gravity record. The total in M. C. F. each month was multiplied by the percentages to get West Texas Gas in M. C. F. The figures in the first two columns above represent the nearest number of millions and explains why the above figures may not check each other exactly.

[fol. 9631] Line E—Per Cent West Texas Gas of Total
Used and Unaccounted for—1933

A continuous record of the specific gravity of gas transported was made at the point of measurement of gas into the line. During the months of January, February, March, October, November and December the specific gravity varied to such an extent that it was necessary to take daily averages of the specific gravity and determine the corresponding percentage of West Texas gas from the graphs by days. These daily percentages were multiplied by the daily total volumes to obtain the volume of West Texas gas by days and the daily figures added to arrive at the monthly total for each month. The monthly total volume of West Texas gas divided by the monthly total volume of all gas gave the percentage of West Texas gas for each month.

During the months of April, May, June, July, August and September the specific gravity was fairly constant for each month and the monthly average specific gravity was used to determine the percentage of West Texas gas from the graphs for those months.

Following is a tabulation by months for the year 1933:

[fol. 9632]

Line E

Per Cent West Texas Gas Used and Unaccounted For—1933

Month	Total Millions	Total West Texas Millions	Per cent West Texas
January.....	173	89	51.00
February.....	184	65	35.00
March.....	149	73	49.00
April.....	99	74	75.00
May.....	79	73	93.00
June.....	74	69	93.00
July.....	76	65	85.00
August.....	77	72	94.00
September.....	104	86	83.00
October.....	115	90	78.00
November.....	164	87	53.00
December.....	176	77	44.00
Year.....	1,470	920	

NOTE.—Percentages in right hand column were obtained from specific gravity record. The total in M. C. F. each month was multiplied by the percentages to get West Texas gas in M. C. F. The volumes shown above represent the nearest number of millions and explains why the above figures may not check each other exactly.

[fol. 9633] Line F—Per Cent West Texas Gas in Total
Used and Unaccounted for—1933

The recording gravitometer on gas in Line F was located on the tap line from Line F to the McKinney City Gate Station, located about midway between the two ends of Line F. Since flow through the McKinney Tap Line was continuous, this gravitometer made an accurate record of the specific gravity in Line F at all times.

The line was fed from both ends. Gas was delivered into the North end from Line G, which transported gas from Fox and surrounding fields. Gas was fed into the South end from Line C, part or all of which gas came from West Texas. During the months of January, February, March, April, October, November and December, the specific gravity varied to such an extent that it was necessary to take daily averages of the specific gravity and determine from the graphs the corresponding percentages of West Texas gas by days.

The gas used and unaccounted for in the line was determined for each day by deducting the gas metered out from that metered in. The percentages of West Texas gas mentioned above were applied to these total daily volumes and the volume of West Texas gas for each day determined. By adding the daily figures the total volume of West Texas gas for each month was obtained and by dividing these totals into the total used and unaccounted for, the per cent of West Texas gas for each of the months mentioned above was obtained.

[fol. 9634] During the months of May, June, July, August and September, the specific gravity record did not vary enough to warrant the use of daily averages. The monthly average specific gravity was used to determine the corresponding per cent of West Texas gas for each of those months.

Following is a tabulation of these percentages by months for the year 1933:

[fol. 9635]

Line F

Per Cent West Texas Gas in Total Used and Unaccounted For—1933

Month	Total Millions	Total West Texas Millions	Per cent West Texas
January.....	110	90	81.00
February.....	125	77	62.00
March.....	75	52	69.00
April.....	55	46	83.00
May.....	54	52	96.00
June.....	49	48	97.00
July.....	51	50	99.00
August.....	56	56	100.00
September.....	56	49	87.00
October.....	67	62	94.00
November.....	80	54	68.00
December.....	97	60	62.00
Total.....	875	696	

In working up the above volumes in M. C. F. were used, whereas only the nearest number of millions is shown above. Hence, some of the above figures may not check exactly.

[fol. 9636]

Part II

[fol. 9637]

Allocation of Property

[fol. 9638] As previously determined by the analysis of the specific gravity of the flowing gas, during the year ended December 31, 1933, certain property units of Lone Star

Gas Company were jointly and/or concurrently used in the transportation and/or compression of gas which has been withdrawn from the Central West Texas area and the Petrolia Field and gas which had been withdrawn from the Shamrock area and Southern Oklahoma. The specific items of physical property which were jointly and/or concurrently used in the transportation and/or the compression of gas from these respective areas during the year 1933 were as follows:

Lines and Equipment:

Line B and B taps.
 Line C.
 Line C-2.
 Line E and E taps.
 Line F and F taps.
 Line G.
 Line G-3 and G-3 taps.

Compressor Station:

Gainesville Compressor Station.
 Petrolia Compressor Station.

All other items of property included in the property account of Lone Star Gas Company, during the year ended December 31, 1933, were used exclusively in either the production, compression and transportation of gas which had been withdrawn either from the Central West Texas area and the Petrolia Field or from the Shamrock area and Southern Oklahoma.

This situation relative to the joint and/or concurrent use of property items in the transportation and/or compression of gas which during the process of its transportation remained wholly within the boundaries of the State of Texas, [fol. 9639] and in the transportation and/or compression of gas which during the process of its transportation passed from the State of Oklahoma into the State of Texas, creates the necessity for the allocation of the property items involved. This allocation is necessary in order that a determination may be made of the proportionate amount of the fixed charges (return, reserve accruals and taxes) on the value of the property which may be ascribed to each service. This same situation also holds true with reference to cer-

tain operating charges incurred by Lone Star Gas Company during the year ended December 31, 1933.

Method of Allocation:

The fixed charges which accrue on the value of the property items of Lone Star Gas Company are largely a function of the passage of time and are therefore independent of the amount of use to which these property units are put measured in terms of the volume of gas transported. Interest or return, ad valorem taxes and local assessments and the reserves required for depreciation, amortization and the cost of replacements will accrue uniformly upon the value of a pipe line irrespective of the volume of gas which may be transported through this line during the period of time (the year 1933 in the instant case) in which these fixed charges will accrue. With this fact in mind, the allocation of the various lines jointly and/or concurrently used during the year ended December 31, 1933, for the transportation of gas produced in the Central West Texas area and the Petrolia Field and for the transportation of gas produced in the Shamrock area and in Southern Oklahoma was made in the following manner:

[fol. 9640] As previously set out, the percentage of the total gas transported each month in lines jointly and/or concurrently used which was represented by gas produced in the Central West Texas area was determined by means of daily calculations from gravimeter records. The summation of these daily calculations determined the weighted percentage of gas produced in the Central West Texas area which was transported in lines jointly and/or concurrently used during each month of the year ended December 31, 1933.

The total fixed charges for any year on any property item equal 100 per cent of these fixed charges for the year. The proportionate part of the total annual fixed charges which accrue during any one month is 8.33 per cent, or one-twelfth of 100 per cent. The percentage of the total gas delivered by any line jointly and/or concurrently used which was represented by gas produced in the Central West Texas area was applied to 8.33 per cent in order to ascertain the percentage of the fixed charges accrued during any one month which should be allocated to the delivery of gas produced in the Central West Texas area. This method of al-

location has been designated the time-volume method inasmuch as it gives effect to the element of time in fixing the percentage of fixed charges for each month, while it also gives effect to the relative volume of gas from the respective sources for each month.

When the sum of the percentages derived from the application of the percentage of the total gas transported each [fol. 9641] month represented by gas produced in Central West Texas (as determined by daily gravitometer readings) to 8.33 per cent is determined for each of the twelve months during the year 1933, this cumulative percentage represents the weighted annual percentage of the line in question which should be allocated to the transportation of gas produced in Central West Texas. The percentage thus derived also provides the basis for the allocation of the cost of the fixed charges, return, taxes and reserve accruals to the transportation of gas produced in Central West Texas by means of facilities jointly and/or concurrently used during the year ended December 31, 1933. It also provides the basis for the allocation of certain operating charges which are subject to allocation by reason of the joint and/or concurrent use of certain property items in the transportation and/or compression of gas which has been produced in the Shamrock area and Southern Oklahoma.

The tabulations which follow set out the application of the weighted monthly percentages of the total gas delivered represented by gas produced in the Central West Texas area during the year ended December 31, 1933, to 8.33 per cent per month in Lines B and B taps, C, C-2, E and E taps, F and F taps, G, G-3 and G-3 taps.

The allocation of the value of the compressor station located at Gainesville, Texas, has been based upon the weighted percentage developed for Line F which line provides the gas compressed at this station.

The allocation of the value of the compressor station located at Petrolia, Texas, has been based upon the fact that 2,500 horse power out of a total of 7,710 horse power in [fol. 9642] stalled was used solely for the compression of gas produced in the Petrolia field during the year ended December 31, 1933.

It must be borne in mind that the allocations herein set out are applicable only to the operations of Lone Star Gas Company during the year ended December 31, 1933.

Defendant's Exhibit No. 45—Continued

[fol. 9643]

Allocation of Line "B" and "B" Taps—Time Volume Basis—to
West Texas Deliveries—1933

Month	Per Cent of Total	West Texas % of Del.	Per Cent by Months
January.....	8.33	.....	.....
February.....	8.33	.....	.....
March.....	8.33	.....	.....
April.....	8.33	.....	.....
May.....	8.33	67.78	5.65
June.....	8.83	87.39	7.28
July.....	8.33	5.10	.42
August.....	8.33	35.95	2.99
September.....	8.33	.....	.....
October.....	8.33	36.01	3.00
November.....	8.33	.....	.....
December.....	8.33	34.00	2.83
			<u>22.17%</u>

Allocation of Line "C" and "C" Taps—Time Volume Basis—to
West Texas Deliveries—1933

Month	Per Cent of Total	West Texas % of Del.	Per cent by Months
January.....	8.33	56.00	4.66
February.....	8.33	49.00	4.08
March.....	8.33	53.00	4.41
April.....	8.33	76.00	6.33
May.....	8.33	95.00	7.91
June.....	8.33	96.00	8.00
July.....	8.33	99.00	8.25
August.....	8.33	100.00	8.33
September.....	8.33	86.00	7.16
October.....	8.33	91.00	7.58
November.....	8.33	52.00	4.33
December.....	8.33	50.00	4.17
			<u>75.21%</u>

Defendant's Exhibit No. 45—Continued

[fol. 9644]

Allocation of Line "C-2"—Time Volume Basis—to West Texas Deliveries—1933

Month	Per cent of Total	West Texas % of Del.	Per cent by Months
January.....	8.33	72.00	6.00
February.....	8.33	65.00	5.41
March.....	8.33	68.00	5.66
April.....	8.33	85.00	7.08
May.....	8.33	96.00	8.00
June.....	8.33	96.00	8.00
July.....	8.33	100.00	8.33
August.....	8.33	98.00	8.16
September.....	8.33	87.00	7.25
October.....	8.33	93.00	7.75
November.....	8.33	64.00	5.33
December.....	8.33	68.00	5.66

82.63%

Allocation of Line "G"—3.74 Miles of 16 In. Line—Time Volume Basis—to West Texas Deliveries—1933

83.13% (Based on Allocation of Line "F")

Allocation of Line "G-3" and Taps—Time Volume Basis—to West Texas Deliveries—1933

83.13% (Based on Allocation of Line "F")

[fol. 9645]

Allocation of the "F" System—Time Volume Basis—to West Texas Deliveries—1933

Month	Per Cent of Total	West Texas % of Del.	Per cent by Months
January.....	8.33	81.00	6.75
February.....	8.33	62.00	5.16
March.....	8.33	69.00	5.75
April.....	8.33	83.00	6.91
May.....	8.33	96.00	8.00
June.....	8.33	97.00	8.08
July.....	8.33	99.00	8.25
August.....	8.33	100.00	8.33
September.....	8.33	87.00	7.25
October.....	8.33	94.00	7.83
November.....	8.33	68.00	5.66
December.....	8.33	62.00	5.16

83.13%

Defendant's Exhibit No. 45—Continued

Allocation of the "E" System—Time Volume Basis—to West Texas Deliveries—1933

Month	Per Cent of Total	West Texas % of Del.	Per cent by Months
January	8.33	51.00	4.25
February	8.33	35.00	2.92
March	8.33	49.00	4.08
April	8.33	75.00	6.25
May	8.33	93.00	7.75
June	8.33	93.00	7.75
July	8.33	85.00	7.08
August	8.33	94.00	7.83
September	8.33	83.00	6.91
October	8.33	78.00	6.50
November	8.33	53.00	4.41
December	8.33	44.00	3.67
			69.40%

fol. 9646]

Part III

fol. 9647]

Allocation of Sales by Classes

fol. 9648] As disclosed by the allocation of property items used for the joint and/or concurrent transportation of gas produced in the Central West Texas area, and gas produced in the Shamrock area and in Southern Oklahoma, the percentage of the total deliveries represented by gas produced in West Texas varied materially from month to month. An analysis of the sales records of the various cities and towns located on lines used for the joint and/or concurrent transportation of gas produced in the Central West Texas area and gas produced in the Shamrock area and Southern Oklahoma also disclosed the fact that there had been a wide variation from month to month in the proportionate amount of gas for which Lone Star Gas Company received 40 cents per M. C. F., and the proportionate amount of the total volume of gas delivered each month for which Lone Star Gas Company received what may be termed its proportionate part of the industrial rate for gas. Due to the existence of these variable factors, it was necessary to make a determination by months of the relative volume of gas produced in the Central West Texas area which had been sold at the domestic rate and the gas from the same area which

had been sold at the industrial rate. The necessity for this determination grows out of the fact that an essential factor in this study is the amount of revenue which Lone Star Gas Company derived during the year ended December 13, 1933, from gas which was transported wholly within the State of Texas and the revenues which Lone Star Gas Company received during the same period from the sale of gas which was transported from the State of Oklahoma into the State of Texas.

The particular localities which during the year ended December 13, 1933, were involved in the situation which grew out of the delivery of gas produced in the Central West Texas area and gas produced in the Shamrock area and Southern Oklahoma were as follows:

The cities and towns served by Line B, the town of Irving which was served by Line C, the metropolitan area of the city of Dallas which was served in part by deliveries from Line C and Line C-2. The metropolitan area of the City of Fort Worth which was served in part by deliveries made at the North Fort Worth measuring station. The cities and towns which were served by Line E, the cities and towns which were served by Line F, the cities and towns which were served by Line G-3, the Cities of Arlington, Handley, Dalworth, Grand Prairie and Arcadia Park which were served in part from Line C-2.

In addition to these cities and towns certain large industrial consumers received varying amounts of gas from the sources under consideration and a separate study has been made of the deliveries to each of these industrial plants.

The first step in the allocation of sales by classes was the determination of the volume of domestic and unaccounted for gas and the volume of industrial gas which each city or town purchased from Lone Star Gas Company during each month of the year 1933. In the case of the cities and towns which were served wholly from one point of delivery, it was necessary only to determine the proportionate amount of the gas delivered during each month from the Central West Texas area and from the Shamrock area and Southern Oklahoma. These percentages which [fol. 9650] were determined by the methods heretofore described were then applied to the respective volume of domestic and unaccounted for gas and the volume of industrial gas purchased by each city or town during each month of the year 1933. The results of these calculations are shown

in a series of tabulations which are a part of this report. In the case of the metropolitan area of the city of Dallas and the metropolitan area of the city of Fort Worth, a different method was required by reason of the fact that concurrent deliveries of gas from Central West Texas and gas from the Shamrock area and Southern Oklahoma by means of common facilities did not constitute the entire volume of gas used by these particular cities.

As an example: The metropolitan area of the city of Dallas received its supply of gas from 5 points of delivery; Boundary measuring station, Hudnall measuring station, Central measuring station, Second Avenue measuring station, and the Lisbon measuring station. Of these measuring stations, the Lisbon and Second avenue measuring stations delivered gas which was wholly produced in the Central West Texas area. It became necessary, therefore, to determine the percentages by months which the deliveries made at the stations which carried mixed gas bore to the total deliveries into the metropolitan area during the same months. These percentages were then applied to the total volume purchased for the city of Dallas from Lone Star Gas Company at 40 cents per M. C. F., and to the total volume purchased each month from Lone Star Gas Company at industrial rates. By these processes, the monthly totals of gas of these two classes represented by deliveries made from measuring stations where mixed gas had been delivered. 9651] livered was determined. To these monthly volumes of gas which were purchased at 40 cents per M. C. F. and gas which was purchased at industrial rates, there was then applied the corresponding percentage of the deliveries for each month represented by gas produced in Southern Oklahoma and the Shamrock Area. In this way it was possible to ascertain the volume of gas represented by gas produced from the Central West Texas area which was paid for at a rate of 40 cents per M. C. F. and at the industrial rate. The various results of the calculations which have been explained are clearly shown in the tabulations which are incorporated in this report. In the case of the group of small towns located on Line J-2, it was necessary to ascertain the amount of gas which fed into Line J-2 from line C-2. This step was taken and the resultant allocations are clearly set out in the tabulation—Allocation of Sales by classes, Arlington, Handley, Dalworth, Grand Prairie and Arcadia Park.

Defendant's Exhibit No. 45—Continued

Allocation of Sales by Classes

"F" System

Month	Domestic Sales M.C.F.	Lost and Unaccounted for	Net at \$.40	Industrial Sales M.C.F.	O. & T. Pn. H.	M.C.F. at \$.40	M.C.F. Industrial
January.....	55,893	- 342	55,551	26,294	19.00	10,555	4,986
February.....	57,182	- 3,551	60,733	26,916	38.00	23,079	10,228
March.....	42,428	- 2,433	44,861	22,131	31.00	13,907	6,861
April.....	31,788	- 1,735	30,053	17,815	17.00	5,109	3,029
May.....	17,703	- 2,411	20,114	21,101	4.00	805	844
June.....	14,567	- 2,180	16,697	24,096	3.00	501	723
July.....	11,425	- 3,830	15,255	27,731	1.00	153	277
August.....	12,014	- 2,938	14,952	24,957	..	..	..
September.....	10,835	- 5,111	15,946	22,303	13.00	2,073	2,899
October.....	14,522	- 7,544	22,066	22,881	6.00	1,324	1,373
November.....	29,818	- 10,108	39,926	22,136	32.00	12,776	7,084
December.....	35,575	- 12,514	48,089	18,475	38.00	18,274	7,021
Total.....	333,750	50,493	384,243	276,836		88,556	45,335
West Texas Domestic 295,687 = 56.09%, Industrial 231,501 = 43.91%; Oklahoma and Texas Panhandle Domestic 88,556 = 66.14%, Industrial 45,335 = 33.86%							
January.....	127,071	- 14,910	112,161	41,221	49.00	54,959	20,198
February.....	126,425	- 4,753	121,672	44,517	65.00	79,087	28,936
March.....	91,530	- 2,162	93,692	40,627	51.00	47,783	20,720
April.....	71,461	- 9,993	61,468	27,986	25.00	15,367	6,997
May.....	40,687	- 3,256	43,943	27,716	7.00	3,076	1,940
June.....	30,340	- 98	30,438	34,054	7.00	2,131	2,384
July.....	24,829	- 5,985	30,814	36,739	15.00	4,622	5,511
August.....	25,523	- 6,589	32,112	35,030	6.00	1,927	2,102
September.....	26,189	- 19,605	45,794	39,914	17.00	7,785	6,785
October.....	32,455	- 1,945	30,510	68,103	22.00	6,712	14,983
November.....	65,909	- 16,153	82,062	56,475	47.00	38,569	26,543
December.....	74,492	- 15,826	90,318	57,945	56.00	50,578	32,449
Total.....	736,911	38,073	774,984	510,327		312,596	169,548
West Texas Domestic 462,388 = 57.57%, Industrial 169,548 = 36.17%							
January.....	127,071	- 14,910	112,161	41,221	49.00	54,959	20,198
February.....	126,425	- 4,753	121,672	44,517	65.00	79,087	28,936
March.....	91,530	- 2,162	93,692	40,627	51.00	47,783	20,720
April.....	71,461	- 9,993	61,468	27,986	25.00	15,367	6,997
May.....	40,687	- 3,256	43,943	27,716	7.00	3,076	1,940
June.....	30,340	- 98	30,438	34,054	7.00	2,131	2,384
July.....	24,829	- 5,985	30,814	36,739	15.00	4,622	5,511
August.....	25,523	- 6,589	32,112	35,030	6.00	1,927	2,102
September.....	26,189	- 19,605	45,794	39,914	17.00	7,785	6,785
October.....	32,455	- 1,945	30,510	68,103	22.00	6,712	14,983
November.....	65,909	- 16,153	82,062	56,475	47.00	38,569	26,543
December.....	74,492	- 15,826	90,318	57,945	56.00	50,578	32,449
Total.....	736,911	38,073	774,984	510,327		312,596	169,548
West Texas Domestic 462,388 = 57.57%, Industrial 169,548 = 36.17%							

Defendant's Exhibit No. 45—Continued

Allocation of Sales by Classes

"B" and Taps

Month	Domestic Sales M.C.F.	Lost and Unaccounted for	Net at \$40	Industrial Sales M.C.F.	Per cent O. & T. Pn. H.	M.C.F. at \$40	M.C.F. Industrial
January.....	25,405	- 1,595	23,810	5,616	100.00	23,810	5,616
February.....	23,298	3,462	26,760	6,997	100.00	26,760	6,997
March.....	18,645	486	19,131	2,698	100.00	19,131	2,698
April.....	14,091	- 1,272	12,819	2,579	100.00	12,819	2,579
May.....	8,508	45	8,463	2,313	32.22	2,727	745
June.....	6,252	706	6,958	2,838	12.61	877	358
July.....	4,905	634	5,539	2,739	94.90	5,257	2,599
August.....	4,989	1,058	6,047	2,678	64.05	3,873	1,715
September.....	5,118	239	5,357	4,175	100.00	5,357	4,175
October.....	5,510	1,861	7,371	3,769	63.99	4,717	2,412
November.....	11,320	4,652	15,972	6,098	100.00	15,972	6,098
December.....	14,467	3,353	17,820	5,135	66.00	11,761	3,389
Total.....	142,508	13,539	156,047	47,635		133,061	39,381

West Texas Domestic 22,986 = 73.58%, Industrial 8,254 = 26.42%; Oklahoma and Texas Panhandle Domestic 133,061 = 77.16%, Industrial 39,381 = 22.84%

(Here follows one paster, side folio 9653)

Defendant's Exhibit No. 45—Continued

[fol. 9653]

Allocation of Sales by Classes
Metropolitan Area of Dallas—From Hudnall and Central Stations

Month	Domestic Sales M.C.F.	Unaccounted For	Net At \$.40	Industrial	Total	Total H. & C. Stations	% H. & C. of Total	% H. & C. of Total Times Net at \$.40	% H. & C. of Total Times Industrial	Oklahoma and Texas Panhandle		
										Percent	Net at \$.40	M.C.F. Industrial
January.....	812,992	-131,511	681,481	264,752	946,233	550,115	58.14	396,214	153,927	35.27	139,744	54,290
February.....	710,221	50,822	761,042	284,181	1,045,223	635,261	60.78	462,561	172,725	48.66	225,082	84,048
March.....	618,043	-80,051	537,992	240,408	778,400	460,004	59.10	317,953	142,081	38.04	120,949	54,048
April.....	422,494	-70,872	351,623	195,209	546,832	342,025	62.55	219,940	122,103	8.77	19,289	10,708
May.....	261,181	-29,171	232,010	193,497	425,507	267,845	62.95	146,050	121,806	1.87	2,731	2,278
June.....	206,780	-14,508	192,272	189,879	382,151	243,886	63.82	122,707	121,181	4.10	5,031	4,968
July.....	166,862	3,014	169,876	200,924	370,800	235,896	63.62	108,075	127,828			
August.....	160,971	16,701	177,672	188,026	365,698	238,611	65.25	115,930	122,687			
September.....	169,559	11,453	181,012	192,002	373,014	237,828	63.76	115,413	122,420	13.03	15,038	15,951
October.....	187,613	73,058	260,671	218,936	479,607	298,845	62.31	162,424	136,419	8.03	13,043	10,954
November.....	355,201	153,934	509,135	274,495	783,630	523,644	66.82	340,204	183,418	39.31	133,734	72,102
December.....	491,119	150,667	641,786	276,193	917,979	582,849	63.49	407,470	175,355	44.77	182,424	78,506
Total.....	4,563,036	133,536	4,696,572	2,718,502	7,415,074	4,616,809		2,914,940	1,701,950		857,065	387,853

West Texas
Domestic—2,057,875 M.C.F..... 61.03%
Industrial—1,314,097 M.C.F..... 38.97%

Oklahoma and Texas Panhandle
Domestic—857,065 M.C.F..... 68.85%
Industrial—387,853 M.C.F..... 31.15%

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PAGE

Defendant's Exhibit No. 45—Continued

[fol. 9654]

Boundary

Allocation of Sales by Classes

Month	Total Net at \$.40	M.C.F.		Total	Boundary	% of Total Net at \$.40		M.C.F.		Per cent	Net at \$.40		M.C.F.
		Industrial	Domestic			Industrial	Domestic	Industrial	Domestic				
January.....	681,481	264,752	946,233	44,115	4.66	31,757	12,337	28.00	8,892	3.454	3,454	3,454	
February.....	761,042	284,181	1,045,223	38,862	3.67	27,930	10,429	35.00	9,776	3.650	3,650	3,650	
March.....	537,992	240,408	778,400	26,271	3.38	18,184	8,126	32.00	5,919	2.600	2,600	2,600	
April.....	351,623	195,209	546,832	20,155	3.69	12,975	7,203	15.00	1,946	1.080	1,080	1,080	
May.....	232,010	193,497	425,507	13,424	3.15	7,308	6,095	4.00	292	.244	.244	.244	
June.....	192,272	189,879	382,151	127	.03	58	57	4.00	2	.2	.2	.2	
July.....	169,876	200,924	370,800	.....	.....	.....	.....	.....	.....	.....	.....	.....
August.....	177,672	188,026	365,698	.....	.....	.....	.....	.....	.....	.....	.....	.....
September.....	181,012	192,002	373,014	.....	.....	.....	.....	.....	.....	.....	.....	.....
October.....	260,671	218,636	479,307	9,071	1.89	4,927	4,138	7.00	345	.290	.290	.290	
November.....	509,135	274,495	783,630	36,147	4.61	23,471	12,654	36.00	8,450	4.555	4,555	4,555	
December.....	641,786	276,193	917,979	51,561	5.62	36,068	15,522	32.00	11,542	4.967	4,967	4,967	
Total.....	4,696,572	2,718,502	7,415,074	239,233	.....	162,678	76,561	.....	47,064	20,842	20,842	20,842

West Texas

Domestic—115,614 M.C.F. 67.48%
Industrial—55,719 M.C.F. 32.52%

Oklahoma and Texas Panhandle

Domestic—47,064 M.C.F. 69.31%
Industrial—20,842 M.C.F. 30.69%

Defendant's Exhibit No. 45—Continued

[fol. 9655f]

Allocation of Sales by Classes

Fort Worth Division—Lone Star Gas Company—North Fort Worth Station

Month	Net at \$40	Total		Per cent		Net at \$40		M.C.F. Industrial		Oklahoma and Texas Panhandle	
		Industrial	Worth	N.	W.	N.	W.	N.	W.	Per cent	Net at \$40
January.....	332,298	231,546	459,196	81.44	270,623	188,571	68.00	184,024	128,228		
February.....	351,491	251,966	468,874	77.70	273,109	195,778	75.00	204,832	146,834		
March.....	269,181	218,830	401,316	82.24	221,374	179,966	67.00	148,321	120,577		
April.....	186,316	185,544	342,855	92.20	171,783	171,072	45.00	77,302	76,982		
May.....	121,380	196,964	318,344	100.00	121,380	196,964	8.00	9,710	15,757		
June.....	107,072	196,055	303,127	100.00	107,072	196,055	3.00	3,212	5,882		
July.....	101,965	209,209	311,174	100.00	101,965	209,209					
August.....	92,650	208,926	299,576	100.00	92,650	208,926	1.00	927	2,069		
September.....	109,019	195,589	304,608	100.00	109,019	195,589	17.00	18,533	33,250		
October.....	149,265	178,601	327,866	100.00	149,265	178,601	14.00	20,897	25,004		
November.....	251,287	232,692	445,711	92.09	231,410	214,286	70.00	161,987	150,000		
December.....	347,183	210,500	499,006	89.48	310,659	188,355	66.00	205,035	124,314		
Total.....	2,419,107	2,514,422	4,933,529		2,160,309	2,321,372		1,034,780	828,897		

West Texas

Domestic—1,125,529 M.C.F..... 42.99%
 Industrial—1,492,475 M.C.F..... 57.01%

Oklahoma and Texas Panhandle

Domestic—1,034,780 M.C.F..... 55.52%
 Industrial—828,897 M.C.F..... 44.48%

Defendant's Exhibit No. 45—Continued

[fol. 9656]

Allocation of Sales by Classes

Irving—Using Line C-2 Per Cents

Oklahoma and Texas Panhandle

Month	Net At \$.40	M.C.F. Industrial	Per cent	Net at \$.40	M.C.F. Industrial
January.....	1,616	3	28.00	452	1
February.....	1,508	4	35.00	528	1
March.....	1,202	...	32.00	385	...
April.....	945	...	15.00	142	...
May.....	491	6	4.00	20	...
June.....	410	...	4.00	16	...
July.....	346	...	...	...	...
August.....	465	...	2.00	9	...
September.....	285	347	13.00	37	45
October.....	582	147	7.00	41	10
November.....	918	64	36.00	330	23
December.....	997	22	32.00	319	7
Total.....	<u>9,765</u>	<u>593</u>		<u>2,279</u>	<u>87</u>

West Texas

Domestic—7,486 M.C.F..... 93.67%
 Industrial—506 M.C.F..... 6.33%

Oklahoma and Texas Panhandle

Domestic—2,279 M.C.F.... 96.32%
 Industrial—87 M.C.F..... 3.68%

Defendant's Exhibit No. 45—Continued

[Col. 9657]

Allocation of Sales by Classes

Arlington, Handley, Dalworth, Grand Prairie and Arcadia Park

Month	Domestic and Un-accounted for	M.C.F. Industrial	Total	Delivery from Line J	Balance from Line C-2	% of Total	Net at \$.40	M.C.F. Industrial	Per cent	Net at \$.40	M.C.F. Industrial
January	17,408	3,815	21,223	-24,518	1,820	11.51	1,442	377	32.00	461	121
February	17,106	4,604	21,710	34,168	5,061	67.57	2,754	2,297	15.00	413	345
March	12,520	3,278	15,807	13,987	12,365	100.00	5,742	6,623	4.00	230	265
April	4,076	3,399	7,475	2,424	12,116	100.00	4,230	7,886	4.00	169	315
May	5,742	6,623	12,365	.....	14,343	100.00	3,865	10,478	.....	.....	.....
June	4,230	7,886	12,116	.....	15,763	100.00	3,991	11,772	2.00	80	235
July	3,865	10,478	14,343	.....	14,089	92.68	3,671	10,398	13.00	477	1,352
August	3,991	11,772	15,763	1,111	14,177	98.26	6,108	8,069	7.00	428	565
September	3,961	11,219	15,180	251	15,731	85.94	10,215	5,516	38.00	3,677	1,986
October	6,216	8,212	14,428	2,573	1,860	8.32	1,155	706	32.00	370	226
November	11,886	6,418	18,304	20,508	.....	.....	.....	.....	.....	.....	.....
December	12,884	8,494	22,368	.....	.....	.....	.....	.....	.....	.....	.....
Total	104,894	86,188	191,082	99,540	107,295	.....	43,173	64,122	.....	6,305	5,410

Texas and Oklahoma Panhandle

West Texas

Domestic—98,589 M.C.F. 54.96%
 Industrial—80,778 M.C.F. 45.04%

Oklahoma and Texas Panhandle

Domestic—6,305 M.C.F. 55.82%
 Industrial—5,410 M.C.F. 46.18%

[Vol. 9658]

Allocation of Sales by Classes

West Dallas—Off Line "C-2"

Month	Domestic and Un- counted for	Oklahoma and Texas Panhandle			
		M.C.F. Industrial	Per cent	Net at \$.40	M.C.F. Industrial
January.....	2,945	2,643	28.00	825	740
February.....	3,210	3,031	35.00	1,124	1,061
March.....	2,560	1,693	32.00	819	542
April.....	1,360	2,409	15.00	204	361
May.....	882	3,230	4.00	35	129
June.....	752	5,286	4.00	30	211
July.....	594	4,899			
August.....	719	5,666	2.00	14	113
September.....	601	3,185	13.00	78	414
October.....	846	3,586	7.00	59	251
November.....	1,794	3,623	36.00	646	1,304
December.....	2,249	2,157	32.00	720	690
Total.....	<u>18,513</u>	<u>41,408</u>		<u>4,554</u>	<u>5,816</u>

West Texas

Domestic—13,959 M.C.F.... 28.17%
 Industrial—35,592 M.C.F.... 71.83%

Oklahoma and Texas Panhandle

Domestic—4,554 M.C.F.... 43.92%
 Industrial—5,816 M.C.F.... 56.08%

Defendant's Exhibit No. 45—Continued

[fol. 9659]

Allocation of Sales by Classes

Line "G-3"—Including Gainesville

Month	Domestic Sales	M.C.F. Unaccounted	Lost and	Net at \$.40	M.C.F. Industrial	Per cent	M.C.F. at \$.40	M.C.F. Industrial
January.....	26,380	-595		25,785	5,935	19.00	4,899	1,128
February.....	26,207	450		26,657	7,161	38.00	10,130	2,721
March.....	17,686	-275		17,411	6,883	31.00	5,397	2,134
April.....	14,389	116		14,505	3,602	17.00	2,466	612
May.....	8,656	-233		8,423	5,879	4.00	337	235
June.....	7,378	-76		7,302	6,383	3.00	219	191
July.....	5,147	-11		5,136	8,278	1.00	51	83
August.....	5,817	92		5,909	6,411	.....	.....	.....
September.....	5,427	517		5,944	8,770	13.00	773	1,140
October.....	6,136	97		6,233	12,887	6.00	374	773
November.....	12,388	304		12,692	10,552	32.00	4,061	3,377
December.....	15,726	-85		15,641	8,741	38.00	5,944	3,322
Total.....	151,337	301		151,638	91,482		34,651	15,716

Oklahoma and Texas Panhandle

West Texas

Domestic—116,987 M.C.F..... 60.69%
 Industrial—75,766 M.C.F..... 39.31%

Oklahoma and Texas Panhandle

Domestic—34,651 M.C.F..... 68.80%
 Industrial—15,716 M.C.F..... 31.20%

Defendant's Exhibit No. 45—Continued

[fol. 9660]

Allocation of Sales

Marathon Oil Company—Fort Worth

West Texas

Month	M.C.F. Industrial	Per cent	M.C.F. Industrial
January.....	3,568	23.00	1,142
February.....	2,821	25.00	705
March.....	2,771	33.00	914
April.....	2,760	55.00	1,518
May.....	2,835	92.00	2,608
June.....	3,155	97.00	3,060
July.....	3,464	100.00	3,464
August.....	1,451	99.00	1,436
September.....	1,932	83.00	1,604
October.....	3,221	86.00	2,770
November.....	2,000	30.00	600
December.....	4,492	34.00	1,527
Total.....	34,470		21,348

West Texas

Industrial—21,348 M.C.F.

Oklahoma and Texas Panhandle

Industrial—13,122 M.C.F.

[fol. 9661]

Allocation of Sales

Trinity Portland Cement Company—Dallas

Oklahoma and Texas Panhandle

Month	M.C.F. Industrial	Per cent	M.C.F. Industrial
January.....	1,059	28.00	297
February.....	1,474	35.00	516
March.....	13,853	32.00	4,433
April.....	33,325	15.00	4,999
May.....	40,917	4.00	1,637
June.....	48,740	4.00	1,950
July.....	1,710		
August.....	1,291	2.00	26
September.....	5,793	13.00	753
October.....	614	7.00	43
November.....	854	36.00	307
December.....	2,105	32.00	674
Total.....	151,735		15,635

West Texas

Industrial—136,100 M.C.F.

Oklahoma and Texas Panhandle

Industrial—15,635 M.C.F.

Defendant's Exhibit No. 45—Continued

[fol. 9662]

Allocation of Sales

Trinity Portland Cement Company—Fort Worth

Oklahoma and Texas Panhandle

Month	M.C.F. Industrial	Per Cent	M.C.F. Industrial
January.....	502	100.00	502
February.....	363	100.00	363
March.....	191	100.00	191
April.....	103	100.00	103
May.....	74	100.00	74
June.....	70	100.00	70
July.....	87	100.00	87
August.....	41,594	18.00	7,487
September.....	190,857	53.00	101,154
October.....	94	100.00	94
November.....	206	100.00	206
December.....	247	100.00	247
Total.....	234,388		110,578

West Texas

Oklahoma and Texas Panhandle

Industrial—123,810 M.C.F.

Industrial—110,578 M.C.F.

[fol. 9663]

Allocation of J-2 and J-2 Taps—Time Volume Basis—To West Texas

Deliveries 1933

	M.C.F. Total	M.C.F. From Line C-2	Per Cent From Line C-2	Shamrock & Okla. Per Cent in Line C-2	Shamrock & Okla. Per Cent in Total	West Texas Per Cent in Total
Jan.....	24,518	.....	...	...	...	100
Feb.....	21,710	.....	...	...	...	100
Mar.....	15,807	1,820	12	32	4	96
Apr.....	7,475	5,051	68	15	10	90
May.....	12,365	12,365	100	4	4	96
June.....	12,116	12,116	100	4	4	96
July.....	14,343	14,343	100	...	...	100
Aug.....	15,763	15,763	100	2	2	98
Sept.....	15,180	14,069	93	13	12	88
Oct.....	14,428	14,117	98	7	7	93
Nov.....	18,308	15,731	86	36	31	69
Dec.....	22,368	1,860	8	32	2	98
			Per Cent of Total	West Texas % of Del.	Per Cent by Months	
Jan.....			8.33	100	8.33	
Feb.....			8.33	100	8.33	
Mar.....			8.33	96	8.00	
Apr.....			8.33	90	7.50	
May.....			8.33	96	8.00	
June.....			8.33	96	8.00	
July.....			8.33	100	8.33	
Aug.....			8.33	98	8.16	
Sept.....			8.33	88	7.33	
Oct.....			8.33	93	7.75	
Nov.....			8.33	69	5.75	
Dec.....			8.33	98	8.16	
					93.64	

[fol. 9664]

Appendix

[fol. 9665]

Line B

The same weighted monthly percentages as were determined for North Station at Fort Worth were used on the net into South end of Line B.

These percentages were applicable to delivery both into South end of Line B and delivery into North Station—Fort Worth on account of the fact that both deliveries were taken from Line C at approximately the same point.

[fol. 9666]

Line C

Covered by detailed explanation in Part I.

[fol. 9667]

Central Station—Dallas

January, 1933

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
1.....	.69	36	21,626	7,785
2.....	.70	43	20,723	8,911
3.....	.72	53	16,419	8,702
4.....	.75	71	12,842	9,118
5.....	.76	78	14,013	10,930
6.....	.76	75	14,876	11,157
7.....	.76	80	16,184	12,947
8.....	.75	75	17,794	13,346
9.....	.73	62	18,005	11,163
10.....	.73	58	17,047	9,887
11.....	.74	63	15,332	9,659
12.....	.71	46	20,026	921
13.....	.70	43	19,097	821
14.....	.71	50	19,418	9,709
15.....	.74	64	16,236	10,391
16.....	.74	66	15,009	9,906
17.....	.77	87	9,173	7,981
18.....	.77	86	8,637	7,428
19.....	.80	100	11,835	11,835
20.....	.78	91	10,851	9,871
21.....	.80	100	8,384	8,384
22.....	.81	100	9,355	9,355
23.....	.81	100	11,768	11,768
24.....	.81	100	13,604	13,604
25.....	.78	90	12,578	11,320
26.....	.77	83	13,222	10,974
27.....	.76	75	16,219	12,164
28.....	.74	67	18,023	12,075
29.....	.75	74	18,713	13,848
30.....	.74	67	13,947	9,344
31.....	.77	83	13,338	11,071
Total.....			464,294	306,375

Weighted Monthly Percentage = $306,375 \text{ divided by } 464,294 = 66.0\%$

Defendant's Exhibit No. 45—Continued

[fol. 9668]

February, 1933

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
1.....	.77	85	14,844	12,617
2.....	.76	78	13,951	10,882
3.....	.73	59	15,608	9,209
4.....	.71	50	18,280	9,140
5.....	.71	50	16,053	8,027
6.....	.72	56	15,764	8,828
7.....	.73	58	23,299	13,513
8.....	.65	14	35,708	4,999
9.....	.65	16	35,475	5,676
10.....	.67	21	30,224	6,347
11.....	.69	34	31,049	10,557
12.....	.68	30	27,624	8,287
13.....	.70	42	17,858	7,500
14.....	.76	80	12,880	10,304
15.....	.73	57	25,786	14,670
16.....	.70	44	21,654	9,528
17.....	.74	65	14,911	9,692
18.....	.75	70	17,054	11,938
19.....	.77	82	14,732	12,080
20.....	.77	85	13,619	11,576
21.....	.76	75	16,372	12,279
22.....	.75	72	15,955	11,488
23.....	.75	73	14,194	10,362
24.....	.80	100	9,625	9,625
25.....	.82	100	9,894	9,894
26.....	.80	100	17,650	17,650
27.....	.75	72	17,167	12,360
28.....	.71	47	18,968	8,915
Total.....			536,148	287,943

Weighted Monthly Average = 287,943 divided by 536,148 = 53.71%

[fol. 9669]

March, 1933

1.....	.69	31	18,057	5,598
2.....	.72	48	13,492	6,476
3.....	.73	51	12,969	6,614
4.....	.76	68	11,739	7,983
5.....	.77	71	11,430	8,115
6.....	.72	48	18,431	8,847
7.....	.69	31	20,104	6,232
8.....	.70	38	15,669	5,954
9.....	.74	56	10,340	5,790
10.....	.76	67	14,788	9,908
11.....	.74	57	14,880	8,482
12.....	.78	76	9,893	7,519
13.....	.82	96	8,196	7,868
14.....	.82	100	8,867	8,867
15.....	.83	100	15,020	15,020
16.....	.75	69	15,241	10,516
17.....	.75	60	11,562	6,937
18.....	.81	92	6,801	6,257
19.....	.82	100	11,042	11,042
20.....	.71	43	19,089	8,208
21.....	.69	32	19,382	6,202
22.....	.73	52	10,565	5,494
23.....	.77	73	11,060	8,074
24.....	.76	67	11,496	7,702

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
25.....	.77	74	14,230	10,530
26.....	.78	75	11,852	8,889
27.....	.78	75	13,269	9,952
28.....	.78	79	10,398	8,214
29.....	.80	89	9,022	8,030
30.....	.82	98	9,641	9,448
31.....	.82	99	11,045	10,935
Total.....			399,570	255,703

Weighted Monthly Percentage = 255,703 divided by 399,570 = 63.99%

[fol. 9670]	October, 1933			
1.....	.81	92	6,819	6,273
2.....	.83	100	7,147	7,147
3.....	.81	92	9,499	8,739
4.....	.81	92	9,424	8,760
5.....	.82	95	9,631	9,149
6.....	.82	94	8,249	7,754
7.....	.80	88	6,370	5,606
8.....	.82	99	7,808	7,730
9.....	.81	90	9,948	8,953
10.....	.79	82	12,217	10,018
11.....	.78	75	10,179	7,634
12.....	.79	81	9,310	7,541
13.....	.80	85	8,978	7,631
14.....	.81	90	9,168	8,251
15.....	.81	91	8,113	7,383
16.....	.83	100	8,687	8,687
17.....	.81	93	12,170	11,318
18.....	.79	83	9,984	8,287
19.....	.79	82	9,583	7,858
20.....	.80	85	8,546	7,264
21.....	.82	95	8,532	8,105
22.....	.83	100	7,610	7,610
23.....	.84	100	7,786	7,786
24.....	.83	100	10,298	10,298
25.....	.83	100	10,161	10,161
26.....	.82	94	11,785	11,078
27.....	.82	94	11,190	10,519
28.....	.82	95	10,972	10,423
29.....	.82	94	8,113	7,626
30.....	.83	100	8,118	8,118
31.....	.83	100	9,897	9,897
Total.....			286,292	263,604

Weighted Monthly Percentage = 263,604 divided by 286,292 = 92.1%

[fol. 9671]	November, 1933			
1.....	.84	100	10,508	10,508
2.....	.84	100	10,421	10,421
3.....	.78	76	16,527	12,561
4.....	.73	52	17,860	9,287
5.....	.73	52	15,870	8,252
6.....	.73	52	17,838	9,276
7.....	.71	41	18,687	7,662
8.....	.71	42	21,358	8,970
9.....	.71	43	19,733	8,485
10.....	.73	51	17,834	9,095

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
11.....	.74	57	13,319	7,592
12.....	.77	72	9,558	6,882
13.....	.79	81	12,366	10,016
14.....	.76	65	17,270	11,226
15.....	.77	70	14,904	10,433
16.....	.76	65	19,215	12,490
17.....	.73	51	15,271	7,788
18.....	.77	71	11,801	8,379
19.....	.79	81	13,555	10,980
20.....	.79	83	11,500	9,545
21.....	.80	84	10,915	9,169
22.....	.77	69	18,157	12,528
23.....	.74	55	18,325	10,079
24.....	.74	54	17,587	9,497
25.....	.72	47	19,891	9,349
26.....	.74	54	16,351	8,830
27.....	.75	60	16,355	9,813
28.....	.77	70	14,730	10,311
29.....	.78	74	10,847	8,027
30.....	.77	71	10,139	7,199
Total.....			458,692	284,651

Weighted Monthly Percentage = 284,692 divided by 284,651 = 62.1%

[fol. 9672]

	December, 1933			
1.....	.78	82	8,667	7,107
2.....	.78	81	9,547	7,733
3.....	.77	74	12,187	9,018
4.....	.77	78	13,690	10,678
5.....	.77	74	12,513	9,260
6.....	.75	63	19,484	12,275
7.....	.70	40	18,035	7,214
8.....	.72	48	19,466	9,344
9.....	.72	51	21,330	10,878
10.....	.74	57	13,107	7,471
11.....	.75	66	11,472	7,572
12.....	.76	72	17,595	12,668
13.....	.73	56	19,432	10,882
14.....	.74	60	12,431	7,459
15.....	.77	79	10,798	8,530
16.....	.78	82	13,364	10,958
17.....	.80	94	9,605	9,029
18.....	.75	66	17,766	11,726
19.....	.70	38	22,643	8,604
20.....	.71	44	22,063	9,708
21.....	.73	56	19,209	10,757
22.....	.74	57	16,864	9,612
23.....	.74	61	11,353	6,925
24.....	.78	82	8,801	7,217
25.....	.76	70	13,051	9,136
26.....	.73	54	16,215	8,756
27.....	.71	43	24,248	10,427
28.....	.70	38	21,294	8,092
29.....	.69	35	21,901	7,665
30.....	.69	31	19,045	5,904
31.....	.71	42	16,429	6,900
Total.....			493,605	279,505

Weighted Monthly Percentage = 279,505 divided by 493,605 = 56.6%

Defendant's Exhibit No. 45—Continued

[fol. 9673]

Hudnall Station—Dallas

January, 1933

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
1.....	.66	15	3,896	584
2.....	.66	17	3,841	653
3.....	.68	31	4,398	1,363
4.....	.72	54	2,106	1,137
5.....	.76	77	2,923	2,251
6.....	.75	69	3,124	2,156
7.....	.74	65	3,147	2,046
8.....	.75	69	2,840	1,960
9.....	.73	58	2,941	1,706
10.....	.71	46	2,811	1,293
11.....	.71	48	2,671	1,282
12.....	.68	30	3,890	1,167
13.....	.67	22	4,759	1,047
14.....	.68	31	4,166	1,291
15.....	.70	42	3,048	1,280
16.....	.72	54	3,038	1,641
17.....	.75	74	2,069	1,531
18.....	.77	87	2,036	1,771
19.....	.81	100	2,149	2,149
20.....	.79	98	1,991	1,951
21.....	.80	100	1,934	1,934
22.....	.82	100	2,012	2,012
23.....	.82	100	1,228	1,228
24.....	.81	100	1,795	1,795
25.....	.78	93	2,534	2,357
26.....	.77	82	2,404	1,971
27.....	.75	71	2,379	1,689
28.....	.73	59	2,248	1,326
29.....	.75	70	2,940	2,058
30.....	.75	73	2,257	1,648
31.....	.75	71	2,246	1,595
Total.....			85,821	49,872

Weighted Monthly Percentage = 49,872 divided by 85,821 = 58.1%

[fol. 9674]

February, 1933

1.....	.77	84	2,136	1,794
2.....	.76	79	1,947	1,538
3.....	.72	55	2,026	1,114
4.....	.68	30	2,247	674
5.....	.69	33	2,000	660
6.....	.70	44	2,176	957
7.....	.71	49	2,970	1,455
8.....	.62	...	9,630	.....
9.....	.62	...	6,628	.....
10.....	.62	...	6,845	.....
11.....	.65	11	6,980	768
12.....	.64	07	3,914	274
13.....	.70	42	4,141	1,739
14.....	.73	60	2,402	1,441
15.....	.72	52	3,212	1,670
16.....	.68	27	3,948	1,066
17.....	.71	46	3,414	1,570
18.....	.74	63	3,759	2,368
19.....	.74	63	3,393	2,138
20.....	.78	67	3,288	2,203
21.....	.75	73	2,722	1,987

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
22.....	.74	66	2,669	1,762
23.....	.74	64	2,013	1,288
24.....	.75	73	1,960	1,431
25.....	.83	100	1,297	1,297
26.....	.79	97	2,596	2,259
27.....	.76	77	3,457	2,662
28.....	.68	28	5,340	1,495
Total.....			99,110	37,610

Weighted Monthly Percentage = 37,610 divided by 99,110 = 37.9%

[fol. 9675]	March, 1933			
1.....	.65	09	3,627	326
2.....	.69	32	2,246	719
3.....	.77	70	1,994	1,306
4.....	.73	53	1,770	938
5.....	.76	69	1,993	1,375
6.....	.72	47	2,935	1,379
7.....	.67	22	3,952	869
8.....	.68	24	3,856	925
9.....	.72	48	1,791	860
10.....	.73	58	1,574	834
11.....	.71	44	1,972	868
12.....	.75	63	1,397	880
13.....	.79	85	853	725
14.....	.83	100	1,079	1,079
15.....	.83	100	1,113	1,113
16.....	.76	65	2,096	1,362
17.....	.72	48	1,509	724
18.....	.77	71	1,991	1,414
19.....	.83	100	974	974
20.....	.71	43	2,647	1,138
21.....	.65	12	4,188	503
22.....	.70	35	2,629	920
23.....	.74	57	1,588	905
24.....	.73	51	1,635	834
25.....	.73	51	1,793	914
26.....	.76	66	2,472	1,632
27.....	.76	65	1,333	866
28.....	.75	62	618	383
29.....	.78	78	1,110	866
30.....	.81	91	976	888
31.....	.85	100	723	723
Total.....			60,434	29,332

Weighted Monthly Percentage = 29,322 divided by 60,434 = 48.4%

[fol. 9676]	November, 1933			
1.....	.80	84	428	360
2.....	.80	87	468	407
3.....	.80	88	958	843
4.....	.78	78	2,902	2,264
5.....	.74	58	2,789	1,618
6.....	.73	50	3,216	1,608
7.....	.72	44	4,191	1,844
8.....	.70	36	4,156	1,496
9.....	.70	34	3,207	1,090
10.....	.72	45	2,180	981

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
11.....	.71	42	1,499	630
12.....	.72	47	1,726	811
13.....	.74	55	1,758	967
14.....	.73	50	3,860	1,930
15.....	.74	54	2,252	1,216
16.....	.74	54	2,151	1,162
17.....	.73	51	2,553	1,302
18.....	.73	50	1,740	1,370
19.....	.73	50	1,140	570
20.....	.74	54	1,436	775
21.....	.75	62	2,373	1,471
22.....	.76	66	1,529	1,009
23.....	.75	60	1,763	1,058
24.....	.73	50	1,721	861
25.....	.71	41	2,685	1,101
26.....	.71	41	1,966	806
27.....	.71	40	2,592	1,037
28.....	.72	45	1,750	788
29.....	.73	50	2,090	1,045
30.....	.74	56	1,873	1,049
Total.....			64,952	33,469

Weighted Monthly Percentage = 33,469 divided by 64,952 = 51.52%

[fol. 9677] December, 1933				
1.....	.74	59	1,665	982
2.....	.75	64	1,854	1,187
3.....	.75	66	1,784	1,177
4.....	.75	66	1,450	957
5.....	.75	66	1,444	953
6.....	.75	65	3,246	2,110
7.....	.73	53	2,908	1,541
8.....	.72	47	3,551	1,669
9.....	.70	39	2,700	1,053
10.....	.71	42	1,004	422
11.....	.71	44	1,201	528
12.....	.72	49	3,001	1,470
13.....	.72	49	3,638	1,783
14.....	.72	49	1,841	902
15.....	.72	50	1,803	902
16.....	.73	55	1,885	1,037
17.....	.74	60	936	562
18.....	.74	60	2,925	1,755
19.....	.72	48	4,976	2,388
20.....	.69	33	4,022	1,327
21.....	.69	33	3,055	1,008
22.....	.70	39	3,112	1,214
23.....	.71	42	2,521	1,059
24.....	.72	48	1,461	701
25.....	.72	50	2,353	1,177
26.....	.73	52	4,678	2,433
27.....	.71	43	4,502	1,936
28.....	.69	34	4,428	1,506
29.....	.69	30	4,636	1,391
30.....	.72	49	5,926	2,904
31.....	.72	49	4,738	2,322
Total.....			89,244	42,356

Weighted Monthly Percentage = 42,356 divided by 89,244 = 47.46%

Defendant's Exhibit No. 45—Continued

North Station—Fort Worth

[fol. 9678]

January, 1933

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
1.....	.64	07	18,589	1,301
2.....	.64	08	15,314	1,225
3.....	.65	09	15,106	1,360
4.....	.69	35	15,138	5,298
5.....	.69	35	16,342	5,720
6.....	.69	36	16,166	5,820
7.....	.70	39	14,142	5,515
8.....	.70	42	17,594	7,389
9.....	.67	23	15,314	3,522
10.....	.66	16	14,640	2,342
11.....	.66	18	13,934	2,508
12.....	.65	10	18,429	1,843
13.....	.64	07	19,215	1,345
14.....	.65	10	16,422	1,642
15.....	.67	23	15,844	3,644
16.....	.68	30	15,186	4,556
17.....	.72	53	12,297	6,517
18.....	.74	68	12,344	8,394
19.....	.76	77	12,264	9,443
20.....	.74	68	13,485	9,170
21.....	.77	85	11,365	9,660
22.....	.78	89	11,992	10,673
23.....	.75	71	13,292	9,437
24.....	.69	37	13,950	5,162
25.....	.70	42	13,982	5,872
26.....	.67	21	14,015	2,943
27.....	.66	19	14,720	2,797
28.....	.67	21	15,828	3,324
29.....	.67	21	16,374	3,439
30.....	.66	15	13,051	1,958
31.....	.69	36	12,862	4,630
Total.....			459,196	148,449

Weighted Monthly Percentage = 148,449 divided by 459,196 = 32.33%

[fol. 9679]

February, 1933

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
1.....	.71	45	13,837	6,227
2.....	.67	25	14,400	3,600
3.....	.66	18	14,994	2,699
4.....	.65	14	15,973	2,236
5.....	.65	10	16,294	1,629
6.....	.66	19	14,801	2,812
7.....	.67	23	17,659	4,062
8.....	.63	01	25,107	251
9.....	.64	06	25,636	1,538
10.....	.63	03	23,084	693
11.....	.65	12	22,345	2,681
12.....	.64	08	19,762	1,581
13.....	.64	07	16,968	1,188
14.....	.70	39	13,998	5,459
15.....	.66	20	21,190	4,238
16.....	.66	15	18,589	2,788
17.....	.67	23	16,069	3,696
18.....	.68	30	15,908	4,772
19.....	.71	49	14,785	7,245
20.....	.72	53	14,142	7,495
21.....	.69	34	15,957	5,425
22.....	.68	30	15,828	4,748

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
23.....	.68	28	13,757	3,852
24.....	.73	61	10,338	6,306
25.....	.78	88	10,659	9,380
26.....	.75	70	16,149	11,304
27.....	.69	33	15,299	5,049
28.....	.65	14	15,347	2,149
Total.....			468,875	115,103

Weighted Monthly Percentage = 115,103 divided by 468,875 = 24.55%

March, 1933				
[fol. 9680]				
1.....	.66	13	15,786	2,052
2.....	.67	19	15,339	2,914
3.....	.67	19	13,804	2,623
4.....	.72	47	12,891	6,059
5.....	.72	48	12,364	5,935
6.....	.67	18	15,819	2,847
7.....	.65	09	16,522	1,487
8.....	.64	06	15,163	910
9.....	.68	27	12,220	3,299
10.....	.70	36	13,660	4,918
11.....	.67	22	15,866	3,491
12.....	.73	50	13,115	6,558
13.....	.79	80	8,205	6,564
14.....	.75	61	9,501	5,796
15.....	.78	75	14,827	11,120
16.....	.69	32	15,210	4,867
17.....	.66	16	12,667	2,027
18.....	.74	59	10,428	6,153
19.....	.75	63	12,092	7,618
20.....	.64	07	15,963	1,117
21.....	.67	20	16,394	3,279
22.....	.66	15	13,148	1,972
23.....	.70	37	11,148	4,125
24.....	.67	20	12,124	2,425
25.....	.68	25	11,580	2,895
26.....	.71	39	12,700	4,953
27.....	.70	36	11,084	3,990
28.....	.70	38	9,597	3,647
29.....	.73	52	10,333	5,373
30.....	.75	60	10,796	6,478
31.....	.75	63	10,972	6,912
Total.....			401,318	134,404

Weighted Monthly Percentage = 134,404 divided by 401,318 = 33.49%

April, 1933				
[fol. 9681]				
1.....	.72	45	11,355	5,110
2.....	.73	49	9,810	4,807
3.....	.71	41	8,342	3,420
4.....	.71	36	10,644	3,832
5.....	.69	27	10,320	2,786
6.....	.68	23	13,579	3,123
7.....	.68	25	12,406	3,102
8.....	.73	50	10,366	5,183
9.....	.79	79	9,346	7,383
0.....	.81	85	7,338	6,237
1.....	.78	72	11,710	8,431
2.....	.74	51	13,456	6,863

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
13.....	.72	44	13,378	5,886
14.....	.70	31	14,367	4,454
15.....	.67	19	16,870	3,205
16.....	.68	22	14,337	3,154
17.....	.75	57	9,254	5,275
18.....	.76	63	9,331	5,879
19.....	.78	71	10,134	7,195
20.....	.77	68	10,736	7,300
21.....	.76	63	12,081	7,611
22.....	.77	65	11,787	7,662
23.....	.81	86	11,092	9,539
24.....	.83	94	9,563	8,989
25.....	.80	83	11,556	9,591
26.....	.82	93	12,838	11,939
27.....	.80	80	12,560	10,048
28.....	.75	58	12,483	7,240
29.....	.75	57	11,185	6,375
30.....	.75	59	10,629	6,271
Total.....			342,853	187,890

Weighted Monthly Percentage = 187,890 divided by 342,853 = 54.80%

[fol. 9682]

October, 1933

1.....	.77	68	9,512	6,468
2.....	.81	89	8,424	7,497
3.....	.80	85	10,242	8,706
4.....	.80	85	11,420	9,707
5.....	.81	89	10,839	9,647
6.....	.81	90	11,480	10,332
7.....	.80	88	10,183	8,961
8.....	.82	95	9,899	9,404
9.....	.81	89	10,168	9,050
10.....	.80	84	11,524	9,680
11.....	.78	75	10,601	7,951
12.....	.78	78	10,287	8,024
13.....	.79	82	10,332	8,472
14.....	.80	86	11,048	9,501
15.....	.80	87	10,064	8,756
16.....	.82	95	8,737	8,300
17.....	.80	87	11,913	10,364
18.....	.79	78	10,809	8,431
19.....	.79	81	11,003	8,912
20.....	.79	81	10,675	8,647
21.....	.80	88	10,436	9,184
22.....	.81	93	9,870	9,179
23.....	.83	99	9,676	9,579
24.....	.82	98	11,152	10,929
25.....	.80	85	11,107	9,441
26.....	.81	91	11,987	10,908
27.....	.78	77	12,017	9,253
28.....	.77	70	12,211	8,548
29.....	.80	84	10,376	8,716
30.....	.82	97	9,244	8,967
31.....	.82	99	10,630	10,524
Total.....			327,866	282,038

Weighted Monthly Percentage = 282,038 divided by 327,866 = 86.02%

Defendant's Exhibit No. 45—Continued.

[fol. 9683]

November, 1933

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
1.....	.81	94	11,917	11,202
2.....	.81	93	12,316	11,454
3.....	.71	39	16,251	6,338
4.....	.68	27	16,539	4,466
5.....	.69	29	14,796	4,291
6.....	.68	23	15,164	3,488
7.....	.67	20	17,515	3,503
8.....	.65	09	18,715	1,684
9.....	.65	11	18,602	2,046
10.....	.66	14	17,115	2,396
11.....	.66	16	15,707	2,513
12.....	.70	35	12,349	4,322
13.....	.75	59	11,165	6,587
14.....	.67	22	15,627	3,438
15.....	.69	29	14,539	4,216
16.....	.68	25	16,108	4,027
17.....	.65	09	16,251	1,463
18.....	.72	46	13,500	6,210
19.....	.73	51	14,124	7,203
20.....	.72	45	11,212	5,045
21.....	.72	46	12,269	5,644
22.....	.70	34	15,964	5,428
23.....	.65	09	15,931	1,434
24.....	.66	15	15,355	2,303
25.....	.65	09	18,283	1,645
26.....	.65	12	15,435	1,852
27.....	.67	22	14,780	3,252
28.....	.69	28	14,732	4,125
29.....	.71	40	12,252	4,901
30.....	.75	63	11,198	7,055
Total.....			445,711	133,531

Weighted Monthly Percentage = 133,531 divided by 445,711 = 30.0%

[fol. 9684]

December, 1933

1.....	.78	83	10,344	8,586
2.....	.78	81	12,305	9,967
3.....	.76	72	13,261	9,548
4.....	.77	75	12,671	9,503
5.....	.75	68	12,209	8,302
6.....	.72	48	17,166	8,240
7.....	.66	16	18,600	2,976
8.....	.65	11	17,596	1,936
9.....	.65	13	17,421	2,265
10.....	.67	19	15,715	2,986
11.....	.73	56	12,910	7,230
12.....	.72	48	16,353	7,849
13.....	.66	15	19,333	2,900
14.....	.71	45	13,771	6,197
15.....	.76	73	12,767	9,320
16.....	.76	72	14,839	10,684
17.....	.77	79	11,938	9,431
18.....	.72	48	17,070	8,194
19.....	.66	17	21,820	3,709
20.....	.64	04	18,123	725
21.....	.65	11	16,401	1,804
22.....	.65	10	15,603	1,560
23.....	.72	49	14,600	2,154

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
24.....	.77	76	13,165	10,005
25.....	.72	50	14,648	7,324
26.....	.67	24	17,310	4,154
27.....	.65	09	22,266	2,004
28.....	.65	10	21,262	2,126
29.....	.64	03	20,561	617
30.....	.63	02	20,003	400
31.....	.64	04	16,975	679
Total.....			499,006	168,375

Weighted Monthly Percentage = 168,375 divided by 499,006 = 33.7%

[fol. 9685] Irving Gate Station

Covered by detailed description in Part I.

[fol. 9686] Marathon Oil Company

Fort Worth Plant

The same weighted monthly percentages as were determined for North Station—Fort Worth were used on the delivery to this plant.

The same percentages were applicable to both deliveries on account of the fact that the delivery to the Marathon Oil Company was taken from Line C at approximately the same point as was delivery to the North Fort Worth Station.

[fol. 9687] Trinity Portland Cement Company

Dallas Plant

The same weighted monthly percentages as were determined for Line C-2 were used on the delivery to this plant.

The same percentages were applicable to both deliveries on account of the fact that delivery to the Cement Plant was taken from Line C-2 near the point where the specific gravity record for Line C-2 was made.

Defendant's Exhibit No. 45—Continued

[fol. 9688]

Trinity Portland Cement Co.—Fort Worth

August, 1933

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
1.....	.84	100	.....	.....
2.....	.84	100	.....	.....
3.....	.83	98	.....	.....
4.....	.81	88	.....	.....
5.....	.80	84	.....	.....
6.....	.81	88	.....	.....
7.....	.82	93	.....	.....
8.....	.81	88	.....	.....
9.....	.83	98	.....	.....
10.....	.82	93	.....	.....
11.....	.81	88	.....	.....
12.....	.81	88	.....	.....
13.....	.82	93	.....	.....
14.....	.82	93	.....	.....
15.....	.82	93	.....	.....
16.....	.83	98	.....	.....
17.....	.82	93	.....	.....
18.....	.83	98	.....	.....
19.....	.82	93	.....	.....
20.....	.82	93	.....	.....
21.....	.82	93	.....	.....
22.....	.83	98	.....	.....
23.....	.83	98	.....	.....
24.....	.82	93	2,840	2,641
25.....	.82	93	3,293	3,062
26.....	.81	88	4,037	3,553
27.....	.81	88	6,654	5,856
28.....	.80	83	6,314	5,241
29.....	.77	69	6,050	4,175
30.....	.79	79	6,579	5,197
31.....	.78	74	5,774	4,273
Total.....			41,541	33,998

Weighted Monthly Percentage = 33,998 divided by 41,541 = 81.84%

[fol. 9689]

September, 1933

1.....	.67	20	5,780	1,156
2.....	.79	78	6,798	5,302
3.....	.71	39	6,912	2,696
4.....	.78	73	6,736	4,917
5.....	.75	59	6,657	3,928
6.....	.73	49	6,719	3,292
7.....	.73	49	4,055	1,987
8.....	.71	39	6,666	2,600
9.....	.70	34	3,338	1,135
10.....	.72	44	5,089	2,239
11.....	.77	68	6,666	4,533
12.....	.71	39	6,647	2,592
13.....	.70	34	6,978	2,373
14.....	.73	49	6,990	3,425
15.....	.73	49	6,755	3,310
16.....	.74	54	6,916	3,735
17.....	.72	44	7,139	3,141
18.....	.73	49	6,934	3,398
19.....	.72	44	6,562	2,887
20.....	.70	34	6,010	2,043
21.....	.65	10	6,010	601
22.....	.63	..	6,637	6,637

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
23.....	.63	..	6,655	6,655
24.....	.63	..	6,632	6,632
25.....	.65	10	6,739	674
26.....	.65	10	6,726	673
27.....	.70	34	6,531	2,221
28.....	.69	30	6,615	1,985
29.....	.69	30	6,670	2,001
30.....	.68	25	5,295	1,324
Total.....			190,857	90,092

Weighted Monthly Percentage = 90,092 divided by 190,857 = 47.20%

[fol. 9690]

Line "C-2" Station

January, 1933

1.....	.73	60	549	329
2.....	.70	42	954	401
3.....	.74	66	939	620
4.....	.72	54	866	468
5.....	.75	72	2,851	2,053
6.....	.76	78	3,101	2,419
7.....	.74	66	2,509	1,656
8.....	.76	78	2,955	2,305
9.....	.74	66	1,516	1,001
10.....	.73	60	2,878	1,727
11.....	.73	60	2,665	1,599
12.....	.71	48	3,415	1,639
13.....	.73	60	1,162	697
14.....	.75	72	762	549
15.....	.75	72	732	527
16.....	.74	66	686	453
17.....	.74	66	217	143
18.....	.77	84	280	235
19.....	.79	96	389	373
20.....	.78	90	1,286	1,157
21.....	.79	96	939	901
22.....	.80	100	904	904
23.....	.81	100	1,528	1,528
24.....	.80	100	1,292	1,292
25.....	.78	90	1,807	1,626
26.....	.77	84	1,167	980
27.....	.76	78	1,224	955
28.....	.74	66	1,247	823
29.....	.75	72	1,642	1,182
30.....	.74	66	2,217	1,463
31.....	.76	78	1,834	1,431
Total.....			46,512	33,436

Weighted Monthly Percentage = 33,436 divided by 46,512 = 71.89%

[fol. 9691]

February, 1933

1.....	.77	84	304	255
2.....	.75	72	264	190
3.....	.72	55	511	281
4.....	.71	49	575	282
5.....	.70	42	365	153
6.....	.72	54	320	173
7.....	.72	54	814	440
8.....	.66	18	927	167
9.....	.66	18	451	81
10.....	.70	42	716	301

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
11.....	.67	24	372	89
12.....	.69	36	304	109
13.....	.69	36	272	98
14.....	.75	72	1,589	1,144
15.....	.73	60	2,848	1,709
16.....	.71	48	3,013	1,446
17.....	.72	54	2,209	1,193
18.....	.74	66	945	624
19.....	.75	72	1,588	1,143
20.....	.76	78	1,819	1,419
21.....	.75	72	1,223	881
22.....	.74	66	2,224	1,468
23.....	.77	83	2,019	1,676
24.....	.78	90	1,055	950
25.....	.81	100	834	834
26.....	.79	95	2,389	2,270
27.....	.76	78	2,802	2,186
28.....	.73	60	2,579	1,547
Total.....			35,331	23,109

Weighted Monthly Percentage = 23,109 divided by 35,331 = 65.41%

[fol. 9692]	March, 1933			
1.....	.72	47	2,248	1,057
2.....	.71	42	611	257
3.....	.72	47	956	449
4.....	.76	67	1,551	1,039
5.....	.76	67	1,593	1,067
6.....	.73	52	3,098	1,611
7.....	.69	31	1,399	434
8.....	.70	36	317	114
9.....	.73	52	56	29
10.....	.75	62	232	144
11.....	.77	72	220	158
12.....	.77	72	864	622
13.....	.81	93	600	558
14.....	.81	93	448	417
15.....	.83	100	1,098	1,098
16.....	.77	73	1,944	1,419
17.....	.74	57	1,584	903
18.....	.80	88	1,421	1,250
19.....	.82	98	1,405	1,377
20.....	.72	47	2,747	1,291
21.....	.69	31	1,370	425
22.....	.72	47	964	453
23.....	.77	72	1,803	1,298
24.....	.75	62	2,429	1,506
25.....	.77	72	2,241	1,614
26.....	.78	78	2,383	1,859
27.....	.78	78	2,604	2,031
28.....	.78	78	2,143	1,672
29.....	.80	80	2,151	1,721
30.....	.81	93	1,663	1,547
31.....	.81	93	2,490	2,316
Total.....			46,633	31,736

Weighted Monthly Percentage = 31,736 divided by 46,633 = 68.05%

Defendant's Exhibit No. 45—Continued

[fol. 9693]

Line "C-2" Station

April, 1933

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
1.....	.82	92	2,402	2,210
2.....	.82	92	2,308	2,123
3.....	.82	92	2,220	2,042
4.....	.83	97	2,351	2,280
5.....	.83	97	2,333	2,263
6.....	.78	72	2,713	1,953
7.....	.75	58	2,795	1,621
8.....	.79	77	2,374	1,828
9.....	.83	97	2,569	2,492
10.....	.84	100	1,758	1,758
11.....	.85	100	2,149	2,149
12.....	.80	82	2,426	1,989
13.....	.79	77	3,050	2,349
14.....	.77	68	2,773	1,886
15.....	.72	43	3,474	1,494
16.....	.73	48	1,475	708
17.....	.79	77	2,466	1,899
18.....	.82	87	4,227	3,677
19.....	.82	92	1,860	1,711
20.....	.82	92	2,254	2,074
21.....	.81	87	2,059	1,791
22.....	.81	87	2,255	1,962
23.....	.83	97	1,961	1,902
24.....	.86	100	2,233	2,233
25.....	.84	100	1,742	1,742
26.....	.84	100	2,047	2,047
27.....	.84	100	2,079	2,079
28.....	.82	92	2,072	1,906
29.....	.82	92	1,570	1,444
30.....	.83	97	1,873	1,817
Total.....			69,868	59,429

Weighted Monthly Percentage = 59,429 divided by 69,868 = 85.06%

[fol. 9694]

October, 1933

1.....	.82	94	988	929
2.....	.84	100	914	914
3.....	.82	96	848	814
4.....	.82	95	832	790
5.....	.82	97	1,162	1,127
6.....	.82	95	1,198	1,138
7.....	.80	87	984	856
8.....	.82	97	844	819
9.....	.81	93	1,324	1,231
10.....	.80	84	948	796
11.....	.78	74	848	628
12.....	.70	80	860	688
13.....	.79	82	801	657
14.....	.81	89	988	879
15.....	.81	92	942	867
16.....	.83	100	1,522	1,522
17.....	.83	99	866	857
18.....	.79	82	859	704
19.....	.79	82	776	636
20.....	.80	84	702	590
21.....	.82	95	902	857
22.....	.83	100	742	742
23.....	.84	100	777	777
24.....	.84	100	778	778

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Tex	M.C.F. Total	M.C.F. West Texas
25.....	.83	100	456	456
26.....	.82	96	981	942
27.....	.82	94	1,956	1,839
28.....	.82	96	1,771	1,700
29.....	.82	94	1,029	967
30.....	.83	100	916	916
31.....	.83	100	884	884
Total.....			30,398	28,300

Weighted Monthly Percentage—28,300 divided by 30,398—93.1%.

[fol. 9695] November, 1933				
1.....	.83	98	887	869
2.....	.83	97	875	849
3.....	.78	78	1,498	1,168
4.....	.74	54	2,850	1,539
5.....	.73	52	2,573	1,338
6.....	.74	55	3,112	1,712
7.....	.71	41	3,122	1,280
8.....	.72	48	3,467	1,664
9.....	.72	45	2,272	1,022
10.....	.74	55	2,275	1,251
11.....	.74	56	2,071	1,160
12.....	.77	71	1,129	802
13.....	.82	95	1,912	1,816
14.....	.77	71	2,933	2,082
15.....	.78	75	2,137	1,603
16.....	.77	71	1,908	1,353
17.....	.73	52	858	446
18.....	.78	76	1,348	1,024
19.....	.81	90	1,586	1,427
20.....	.80	89	1,475	1,313
21.....	.80	86	1,014	872
22.....	.77	73	1,749	1,277
23.....	.75	59	2,399	1,415
24.....	.75	61	1,662	1,014
25.....	.73	53	3,071	1,628
26.....	.74	57	2,416	1,377
27.....	.76	66	2,176	1,436
28.....	.77	73	2,659	1,941
29.....	.78	76	1,294	983
30.....	.78	75	1,188	891
Total.....			59,914	38,552

Weighted Monthly Percentage—38,552 divided by 59,914—64.35%.

[fol. 9696] December, 1933				
1.....	.79	88	1,660	1,461
2.....	.76	70	1,082	757
3.....	.78	83	1,024	850
4.....	.79	89	1,380	1,228
5.....	.78	80	1,116	893
6.....	.77	75	2,041	1,531
7.....	.72	51	1,864	951
8.....	.74	58	2,792	1,619
9.....	.73	53	1,112	589
10.....	.75	64	2,461	1,575
11.....	.77	74	1,220	903
12.....	.79	86	2,548	2,191
13.....	.75	66	3,536	2,334

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Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
14.....	.75	63	2,255	1,421
15.....	.78	83	1,525	1,266
16.....	.79	88	1,915	1,685
17.....	.81	98	1,602	1,570
18.....	.78	82	2,874	2,357
19.....	.73	55	2,728	1,500
20.....	.73	55	3,476	1,912
21.....	.75	66	1,440	950
22.....	.75	66	1,188	784
23.....	.75	66	1,952	1,288
24.....	.79	88	1,214	1,068
25.....	.78	82	1,920	1,574
26.....	.75	66	3,263	2,154
27.....	.73	55	4,051	2,228
28.....	.73	55	1,609	885
29.....	.71	44	1,783	785
30.....	.70	38	1,368	520
31.....	.72	49	1,530	750
Total.....			61,529	41,579

Weighted Monthly Percentage—41,579 divided by 61,529—67.58%.

[fol. 9697]

Line E

January, 1933

1.....	.72	54	7,629	4,120
2.....	.67	24	11,328	2,719
3.....	.70	42	7,099	2,982
4.....	.72	54	5,945	3,210
5.....	.73	60	5,440	3,264
6.....	.71	48	5,937	2,850
7.....	.72	54	5,536	2,989
8.....	.68	30	5,585	1,676
9.....	.72	54	5,253	2,837
10.....	.69	36	5,876	2,115
11.....	.70	42	5,613	2,357
12.....	.68	30	6,850	2,055
13.....	.68	30	7,492	2,248
14.....	.69	30	6,663	1,999
15.....	.69	36	5,749	2,070
16.....	.69	36	5,349	1,926
17.....	.73	60	4,726	2,836
18.....	.71	48	4,287	2,058
19.....	.72	54	2,862	1,545
20.....	.73	60	4,887	2,932
21.....	.77	84	3,698	3,106
22.....	.79	96	3,125	3,000
23.....	.75	72	4,126	2,971
24.....	.76	78	3,518	2,744
25.....	.77	84	4,913	4,127
26.....	.75	72	4,948	3,563
27.....	.75	72	5,791	4,170
28.....	.73	60	5,876	3,526
29.....	.72	54	6,518	3,520
30.....	.75	72	5,184	3,732
31.....	.74	66	5,391	3,558
Total.....			173,194	88,805

Weighted Monthly Percentage—88,805 divided by 173,194—51.27%.

Defendant's Exhibit No. 45—Continued

(fol. 9608)

February, 1933				
Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
1.....	.74	66	5,265	3,475
2.....	.74	66	5,165	3,409
3.....	.74	66	5,552	3,664
4.....	.71	48	5,440	2,611
5.....	.71	48	5,850	2,808
6.....	.71	48	5,215	2,503
7.....	.69	36	7,900	2,844
8.....	.65	12	12,553	1,506
9.....	.65	12	12,398	1,488
10.....	.65	12	10,794	1,295
11.....	.66	18	9,391	1,690
12.....	.66	18	8,516	1,533
13.....	.66	18	5,796	1,043
14.....	.67	24	5,924	1,423
15.....	.67	24	8,090	1,942
16.....	.66	18	8,222	1,480
17.....	.68	30	6,730	2,019
18.....	.71	48	5,382	2,583
19.....	.71	48	5,335	2,561
20.....	.71	48	4,080	1,958
21.....	.72	54	5,719	3,088
22.....	.70	42	6,141	2,579
23.....	.73	60	4,669	2,801
24.....	.73	60	3,545	2,127
25.....	.76	78	3,112	2,427
26.....	.73	60	5,424	3,254
27.....	.72	54	5,165	2,789
28.....	.67	24	6,843	1,642
Total.....			184,216	64,541

Weighted Monthly Percentage—64,541 divided by 184,216—35.04%.

(fol. 9609)

March, 1933				
Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
1.....	.68	16	5,970	955
2.....	.69	31	4,953	1,535
3.....	.71	42	4,261	1,790
4.....	.71	42	4,432	1,861
5.....	.71	42	5,022	2,109
6.....	.70	36	5,460	1,966
7.....	.68	26	7,305	1,899
8.....	.70	36	6,678	2,404
9.....	.71	42	5,240	2,201
10.....	.72	47	4,685	2,202
11.....	.70	36	5,868	2,112
12.....	.73	52	5,369	2,761
13.....	.77	73	3,857	2,816
14.....	.80	88	3,509	3,088
15.....	.76	67	3,543	2,874
16.....	.75	62	5,816	3,606
17.....	.76	67	5,267	3,529
18.....	.75	62	3,524	2,185
19.....	.77	73	3,619	2,642
20.....	.77	73	6,095	4,449
21.....	.66	16	8,209	1,813
22.....	.67	21	5,418	1,188
23.....	.71	42	4,261	1,790
24.....	.74	57	4,972	2,824
25.....	.75	62	5,006	3,104
26.....	.76	67	4,413	2,957

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
27.....	.76	67	3,956	2,651
28.....	.77	73	3,426	2,501
29.....	.77	73	2,896	1,968
30.....	.75	62	3,229	2,002
31.....	.77	73	3,330	2,431
Total.....			149,329	73,173

Weighted Monthly Percentage—73,173 divided by 149,329—49.00%.

[fol. 9700]	October, 1933			
1.....	.79	81	3,912	3,169
2.....	.81	91	3,242	2,950
3.....	.78	76	3,608	2,742
4.....	.77	71	3,754	2,665
5.....	.77	71	3,853	2,736
6.....	.78	76	4,017	3,053
7.....	.78	76	4,197	3,190
8.....	.79	81	4,076	3,302
9.....	.80	86	3,648	3,137
10.....	.77	71	4,362	3,097
11.....	.76	66	4,416	2,915
12.....	.76	66	4,310	2,845
13.....	.77	71	4,010	2,847
14.....	.77	71	3,885	2,758
15.....	.78	76	3,828	2,909
16.....	.79	76	3,070	2,333
17.....	.78	76	3,198	2,430
18.....	.78	76	3,773	2,867
19.....	.78	76	3,845	2,922
20.....	.78	76	3,699	2,811
21.....	.78	76	3,356	2,551
22.....	.78	76	3,322	2,525
23.....	.82	96	2,854	2,740
24.....	.81	91	3,264	2,970
25.....	.81	91	3,165	2,880
26.....	.78	76	3,878	2,947
27.....	.79	81	3,878	3,141
28.....	.79	81	3,967	3,213
29.....	.81	91	3,904	3,553
30.....	.81	91	3,044	2,770
31.....	.80	86	3,356	2,886
Total.....			114,691	89,854

Weighted Monthly Percentage—89,854 divided by 114,691—78.34%.

[fol. 9701]	November, 1933			
1.....	.80	87	3,509	3,053
2.....	.80	87	3,475	3,023
3.....	.76	66	4,042	2,668
4.....	.72	46	6,375	2,933
5.....	.70	35	5,555	1,944
6.....	.72	46	5,108	2,350
7.....	.70	36	7,524	2,709
8.....	.79	30	7,271	2,181
9.....	.69	30	7,252	2,176
10.....	.72	46	6,401	2,944
11.....	.73	51	6,266	3,196
12.....	.74	56	4,885	2,738
13.....	.75	61	3,974	2,424

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
14.....	.74	56	5,903	3,306
15.....	.76	66	5,453	3,599
16.....	.74	56	5,732	3,210
17.....	.72	46	6,560	3,018
18.....	.74	56	4,953	2,774
19.....	.75	61	4,878	2,976
20.....	.78	76	4,330	3,291
21.....	.78	76	5,460	4,150
22.....	.75	61	5,630	3,484
23.....	.72	46	6,443	2,964
24.....	.73	51	5,903	3,011
25.....	.70	36	6,409	2,307
26.....	.72	46	5,472	2,517
27.....	.73	51	4,345	2,216
28.....	.73	51	6,239	3,182
29.....	.77	71	4,863	3,453
30.....	.77	71	4,226	3,000
Total.....			164,436	86,745

Weighted Monthly Percentage—86,745 divided by 164,436—52.75%.

[fol. 9702]	December, 1933			
1.....	.75	66	3,644	2,405
2.....	.74	60	3,798	2,279
3.....	.74	60	3,549	2,129
4.....	.78	82	3,328	2,729
5.....	.73	55	4,803	2,642
6.....	.75	66	4,691	3,096
7.....	.70	38	7,007	2,663
8.....	.71	44	7,045	3,100
9.....	.72	49	6,934	3,398
10.....	.72	49	6,510	3,190
11.....	.70	38	4,203	1,597
12.....	.71	44	5,081	2,236
13.....	.72	49	6,067	2,973
14.....	.73	55	5,849	3,217
15.....	.73	55	3,939	2,166
16.....	.73	55	4,443	2,444
17.....	.75	66	4,543	2,998
18.....	.76	71	4,210	2,989
19.....	.68	27	7,771	2,098
20.....	.69	32	7,676	2,456
21.....	.71	44	6,945	3,056
22.....	.72	49	6,120	2,999
23.....	.74	60	5,039	3,023
24.....	.74	60	3,985	2,391
25.....	.74	60	4,287	2,572
26.....	.73	55	5,509	3,030
27.....	.67	21	8,558	1,797
28.....	.64	05	8,585	429
29.....	.66	16	7,496	1,199
30.....	.67	21	7,611	1,598
31.....	.69	32	6,740	3,157
Total.....			175,964	77,056

Weighted Monthly Percentage—77,056 divided by 175,964—43.79%.

Defendant's Exhibit No. 45—Continued

[fol. 9703]

Line F

January, 1933

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
1.....	.72	54	5,399	2,915
2.....	.73	60	—2,817	—1,690
3.....	.74	66	4,070	2,686
4.....	.76	78	5,477	4,272
5.....	.77	84	3,630	3,049
6.....	.78	90	3,823	3,441
7.....	.78	90	4,832	4,349
8.....	.79	96	3,323	3,190
9.....	.75	72	3,608	2,598
10.....	.75	72	3,889	2,800
11.....	.74	66	3,876	2,558
12.....	.74	66	3,038	2,005
13.....	.72	54	4,744	3,562
14.....	.73	60	4,370	2,622
15.....	.75	72	5,445	3,920
16.....	.75	72	2,541	1,830
17.....	.77	84	4,763	4,001
18.....	.77	84	3,622	3,042
19.....	.80	100	2,297	2,297
20.....	.80	100	2,186	2,186
21.....	.81	100	3,582	3,582
22.....	.81	100	2,844	2,844
23.....	.81	100	2,023	2,023
24.....	.81	100	3,251	3,251
25.....	.79	96	3,020	2,899
26.....	.79	96	3,818	3,664
27.....	.78	90	2,848	2,563
28.....	.77	84	4,421	3,714
29.....	.78	90	3,654	3,289
30.....	.77	84	4,796	4,029
31.....	.77	84	3,770	3,167
Total.....			110,143	89,658

Weighted Monthly Percentage—89,658 divided by 110,143—81.40%.

[fol. 9704]

February, 1933

1.....	.77	83	3,503	2,907
2.....	.77	83	4,522	3,758
3.....	.74	66	4,270	3,818
4.....	.74	66	4,168	2,751
5.....	.73	60	5,540	3,324
6.....	.74	66	4,387	2,829
7.....	.74	66	5,099	3,865
8.....	.69	36	5,778	2,080
9.....	.69	36	—1,912	—688
10.....	.69	36	7,611	2,740
11.....	.69	36	5,070	1,825
12.....	.69	36	5,962	2,154
13.....	.70	42	8,555	3,593
14.....	.76	90	2,608	2,847
15.....	.74	66	3,936	2,598
16.....	.71	48	3,404	4,034
17.....	.74	66	4,351	2,872
18.....	.75	72	3,652	2,699
19.....	.77	83	3,991	3,813
20.....	.79	96	2,841	2,727
21.....	.75	72	4,204	3,027
22.....	.74	66	4,280	2,825
23.....	.74	66	4,614	3,045

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
24.....	.77	83	4,176	3,466
25.....	.80	100	3,778	3,778
26.....	.79	96	1,622	1,557
27.....	.76	78	3,139	2,448
28.....	.70	42	7,039	2,956
Total.....			125,108	77,073

Weighted Monthly Percentage—77,073 divided by 125,108—61.61%.

[fol. 9705] March, 1933				
1.....	.70	36	331	119
2.....	.72	47	3,255	1,530
3.....	.72	47	2,710	1,274
4.....	.75	62	2,509	1,556
5.....	.76	67	2,026	1,357
6.....	.74	57	226	129
7.....	.70	36	2,434	876
8.....	.71	42	4,383	1,841
9.....	.75	62	4,554	2,823
10.....	.75	62	1,146	711
11.....	.76	67	1,548	1,037
12.....	.78	77	3,145	2,422
13.....	.80	88	3,057	2,690
14.....	.81	93	3,672	3,415
15.....	.82	98	190	186
16.....	.77	73	2,358	1,721
17.....	.76	67	3,677	2,464
18.....	.79	83	4,716	3,914
19.....	.82	98	2,934	2,875
20.....	.71	42	942	396
21.....	.67	21	-1,650	-347
22.....	.72	47	2,783	1,300
23.....	.76	67	2,733	1,831
24.....	.76	67	3,393	2,273
25.....	.76	67	3,303	2,213
26.....	.77	73	2,908	2,123
27.....	.77	73	1,813	1,323
28.....	.77	73	3,398	2,481
29.....	.77	73	2,240	1,635
30.....	.80	88	2,827	2,488
31.....	.80	88	1,725	1,518
Total.....			75,286	52,182

Weighted Monthly Percentage—52,182 divided by 75,286—69.31%.

April, 1933				
1.....	.81	87	2,285	1,988
2.....	.83	97	4,268	4,140
3.....	.81	87	2,501	2,176
4.....	.83	97	2,445	2,372
5.....	.84	99	2,787	2,759
6.....	.80	82	2,685	2,202
7.....	.76	63	3,967	2,499
8.....	.77	68	3,760	2,557
9.....	.81	87	2,876	2,502
10.....	.84	100	2,036	2,036
11.....	.83	97	602	584
12.....	.82	92	-1,131	-1,041
13.....	.81	85	2,044	1,737

Defendant's Exhibit No. 45—Continued

[fol. 9706] Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
14.....	.80	82	4,008	3,287
15.....	.76	63	2,230	1,405
16.....	.76	63	4,535	2,857
17.....	.79	77	580	447
18.....	.81	87	322	280
19.....	.82	92	-1,010	-929
20.....	.82	92	-905	-833
21.....	.83	94	1,567	1,473
22.....	.81	87	1,673	1,456
23.....	.81	85	587	499
24.....	.81	87	876	762
25.....	.81	87	1,038	903
26.....	.83	97	718	696
27.....	.83	97	1,446	1,403
28.....	.82	92	2,316	2,131
29.....	.81	87	2,277	1,981
30.....	.82	92	1,403	1,291
Total.....			54,786	45,620

Weighted Monthly Percentage—45,620 divided by 54,786—83.27%.

[fol. 9707]	October, 1933			
1.....	.82	96	3,329	3,196
2.....	.82	96	2,318	2,225
3.....	.82	96	1,071	1,028
4.....	.82	96	1,202	1,154
5.....	.82	96	1,394	1,338
6.....	.82	96	1,512	1,452
7.....	.81	91	2,052	1,867
8.....	.82	96	2,740	2,630
9.....	.81	91	1,574	1,432
10.....	.80	86	1,311	1,127
11.....	.78	76	2,275	1,729
12.....	.79	81	2,569	2,081
13.....	.80	86	2,968	2,552
14.....	.81	91	2,776	2,526
15.....	.81	91	3,124	2,843
16.....	.83	100	1,943	1,943
17.....	.83	100	1,556	1,556
18.....	.80	86	2,695	2,318
19.....	.80	86	2,311	1,987
20.....	.80	86	2,559	2,201
21.....	.82	96	2,159	2,073
22.....	.83	100	2,490	2,490
23.....	.83	100	2,130	2,130
24.....	.85	100	1,624	1,624
25.....	.84	100	1,378	1,378
26.....	.83	100	1,378	1,378
27.....	.83	100	2,114	2,114
28.....	.83	100	2,541	2,541
29.....	.83	100	3,350	3,350
30.....	.84	100	1,997	1,997
31.....	.84	100	2,121	2,121
Total.....			66,561	62,381

Weighted Monthly Percentage—62,381 divided by 66,561—93.72%.

Defendant's Exhibit No. 45—Continued

[fol. 9708]

November, 1933

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
1.....	.83	100	1,709	1,709
2.....	.83	100	1,379	1,379
3.....	.79	81	1,051	851
4.....	.76	66	1,676	1,106
5.....	.75	61	4,430	2,702
6.....	.75	61	1,066	650
7.....	.72	46	-589	-271
8.....	.73	51	3,084	1,573
9.....	.73	51	2,017	1,029
10.....	.74	56	2,046	1,146
11.....	.74	56	3,021	1,692
12.....	.76	66	5,065	3,343
13.....	.79	81	1,142	925
14.....	.77	71	395	280
15.....	.77	71	4,108	2,917
16.....	.76	66	1,502	991
17.....	.74	56	3,021	1,692
18.....	.76	66	5,051	3,334
19.....	.79	81	3,110	2,519
20.....	.80	86	2,967	2,552
21.....	.79	81	3,711	3,006
22.....	.78	76	749	569
23.....	.75	61	3,387	2,066
24.....	.75	61	3,749	2,287
25.....	.74	56	2,755	1,548
26.....	.75	61	6,032	3,680
27.....	.75	61	2,714	1,656
28.....	.77	71	2,088	1,482
29.....	.78	76	5,319	4,042
30.....	.77	71	2,148	1,525
Total.....			79,913	53,980

Weighted Monthly Percentage—53,980 divided by 79,913—67.55%.

[fol. 9709]

December, 1933

1.....	.78	82	1,790	1,468
2.....	.79	88	2,013	1,771
3.....	.78	82	1,627	1,334
4.....	.78	82	703	576
5.....	.78	82	2,572	2,109
6.....	.75	66	390	257
7.....	.71	44	4,592	2,020
8.....	.74	60	2,124	1,274
9.....	.74	60	3,731	2,239
10.....	.75	66	8,340	5,504
11.....	.74	60	788	473
12.....	.78	82	1,543	1,265
13.....	.75	66	2,936	1,938
14.....	.74	60	4,503	2,702
15.....	.77	76	2,099	1,595
16.....	.79	88	1,726	1,519
17.....	.80	93	3,754	3,491
18.....	.77	76	1,536	1,160
19.....	.71	44	4,267	1,877
20.....	.73	55	2,878	1,533
21.....	.75	66	3,638	2,401
22.....	.78	71	5,332	4,178
23.....	.75	66	4,394	2,900

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
24.....	.78	82	2,974	2,439
25.....	.78	82	2,690	2,206
26.....	.74	60	2,559	1,535
27.....	.70	38	3,571	1,357
28.....	.69	32	5,212	1,668
29.....	.71	44	2,725	1,199
30.....	.71	44	4,417	1,943
31.....	.72	49	4,606	2,257
Total.....			96,570	60,236

Weighted Monthly Percentage—60,236 divided by 96,570—62.38%.

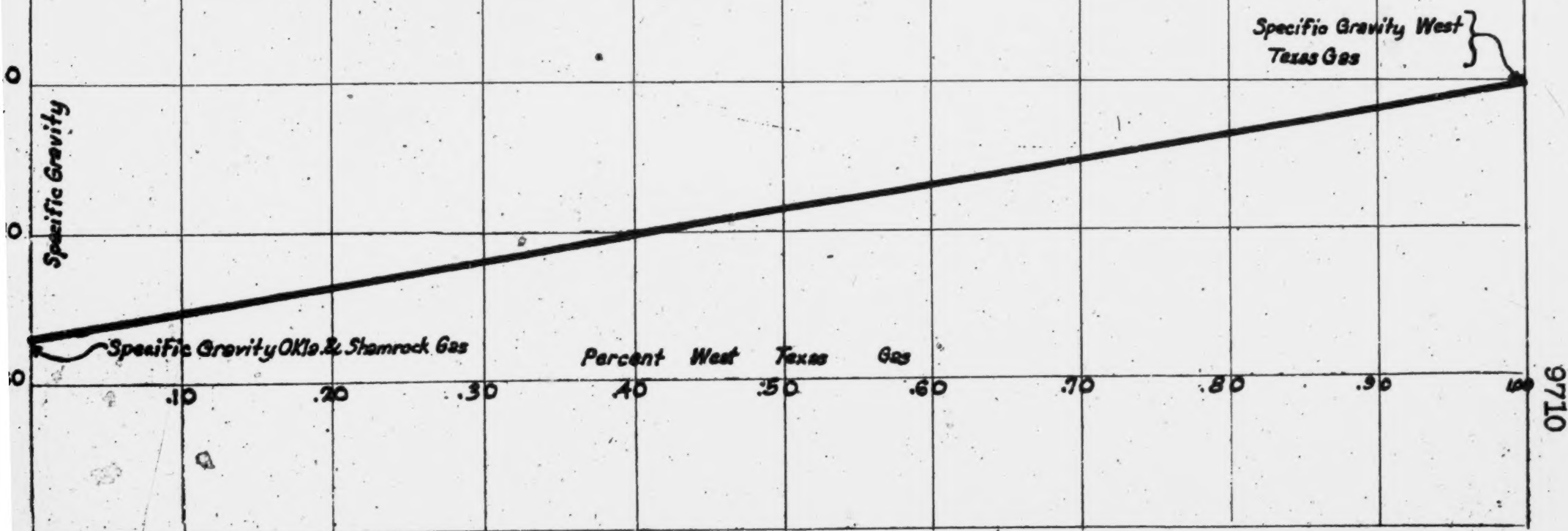
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PAGE

LONE STAR GAS CO.

GRAPH SHOWING PERCENT WEST TEXAS GAS FOR
DIFFERENT SPECIFIC GRAVITIES

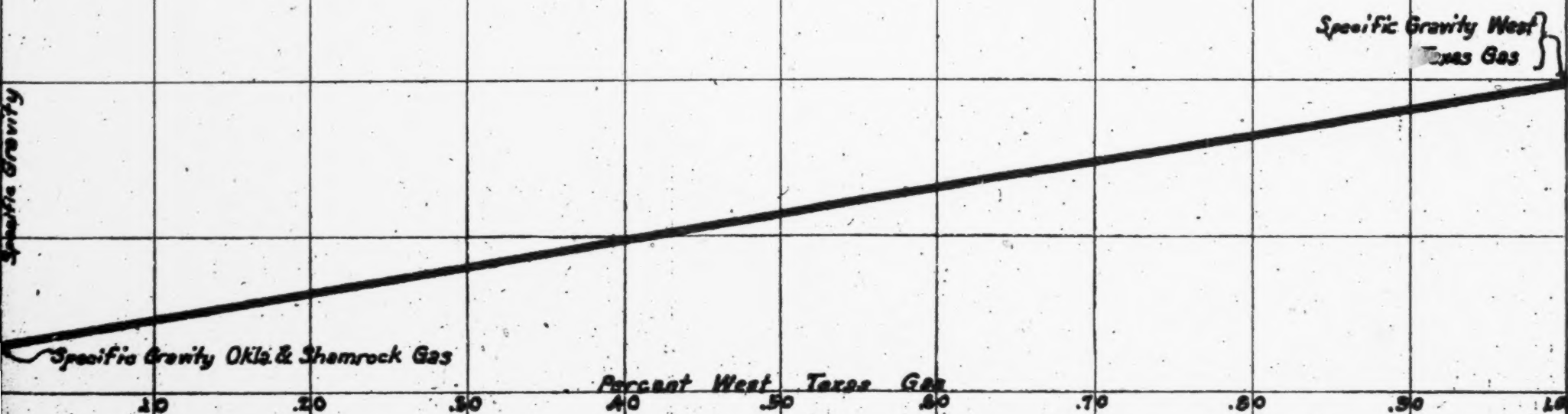
JANUARY 1933



LONE STAR GAS CO.

GRAPH SHOWING PERCENT WEST TEXAS GAS FOR
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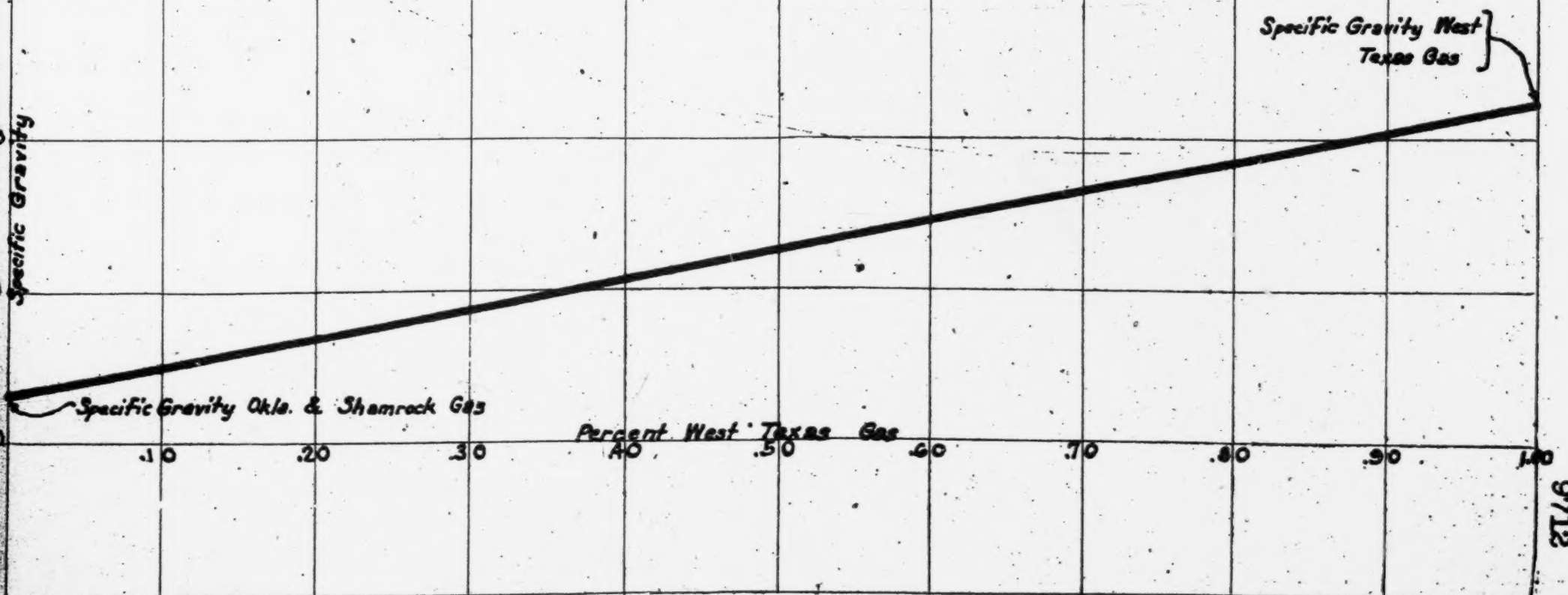
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LONE STAR GAS CO.

GRAPH SHOWING PERCENT WEST TEXAS GAS FOR
DIFFERENT SPECIFIC GRAVITIES
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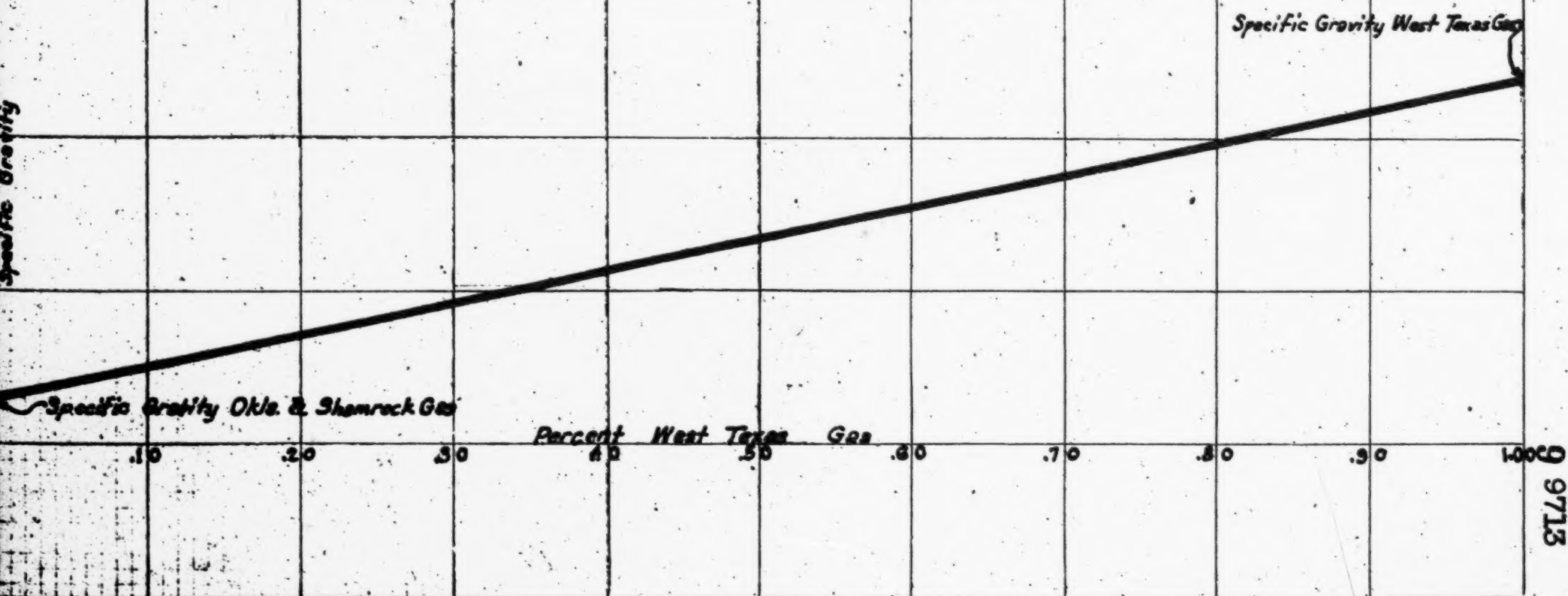


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LONE STAR GAS CO.

GRAPH SHOWING PERCENT WEST TEXAS GAS FOR DIFFERENT
SPECIFIC GRAVITIES

APRIL 1933

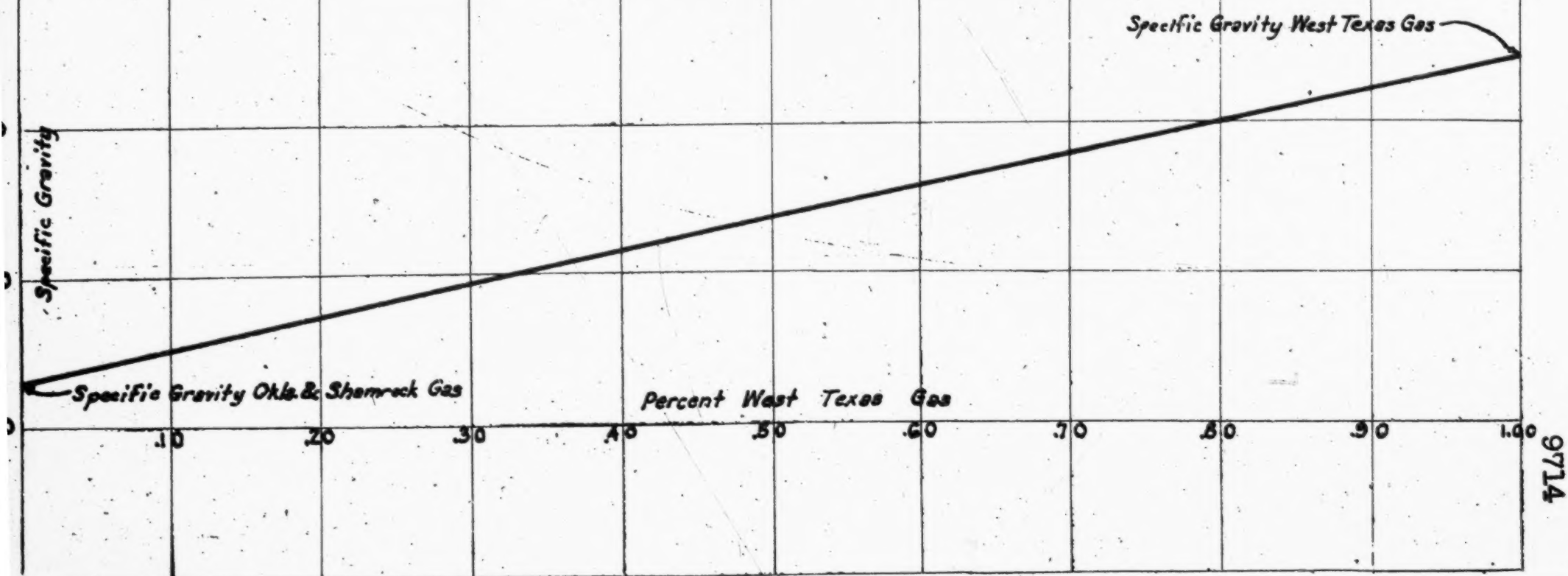


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LONE STAR GAS CO.

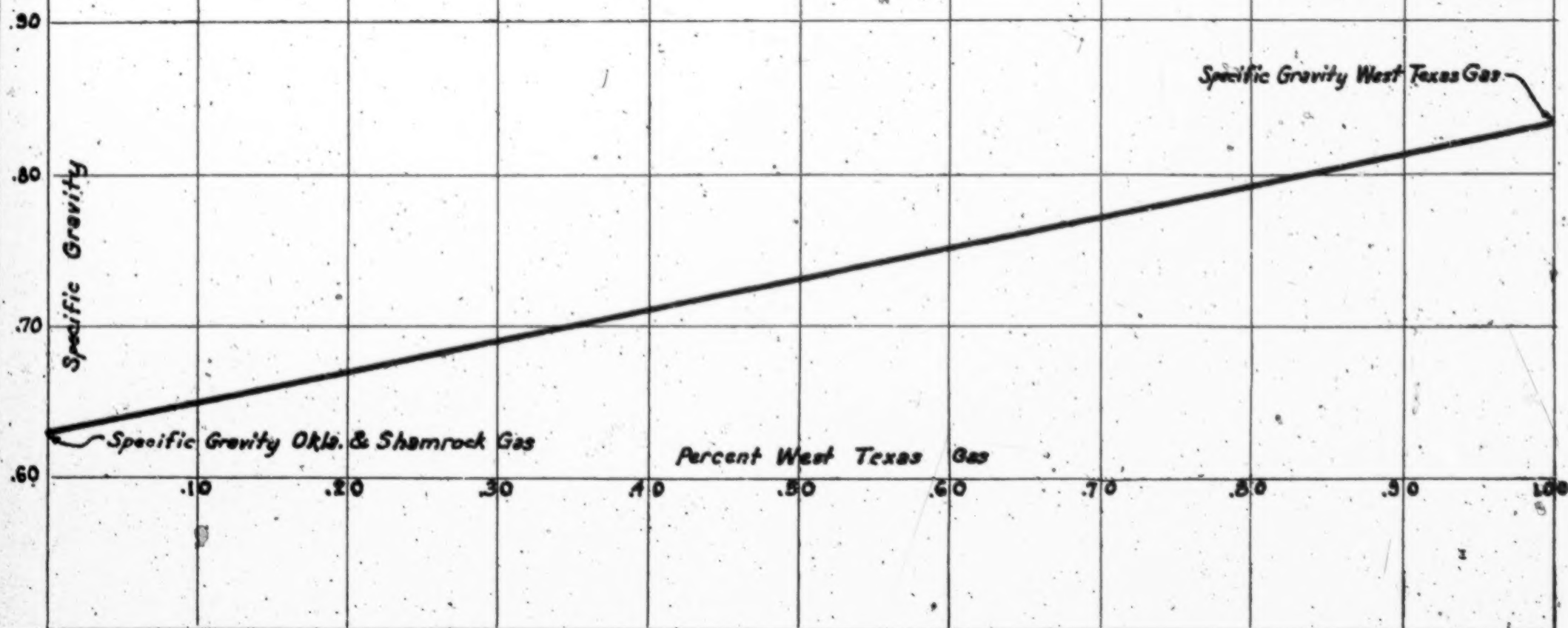
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SPECIFIC GRAVITIES

MAY 1933



LONE STAR GAS CO.

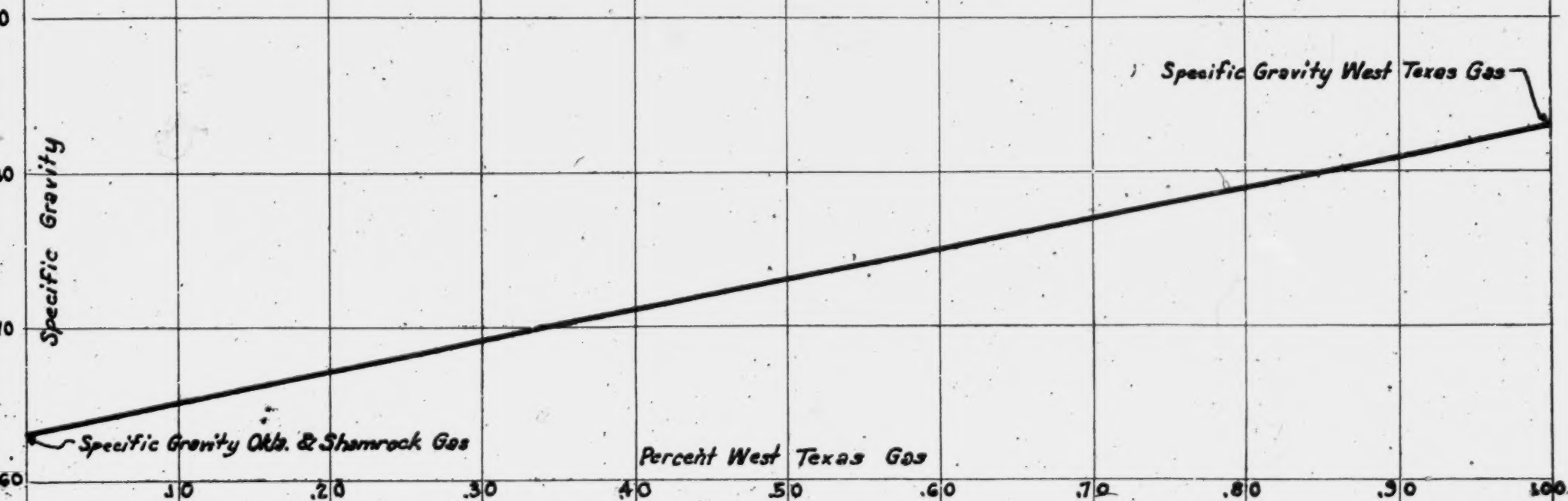
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SPECIFIC GRAVITIES
JUNE 1933



3273

LONE STAR GAS CO.

GRAPH SHOWING PERCENT WEST TEXAS GAS FOR DIFFERENT
SPECIFIC GRAVITIES
JULY 1933



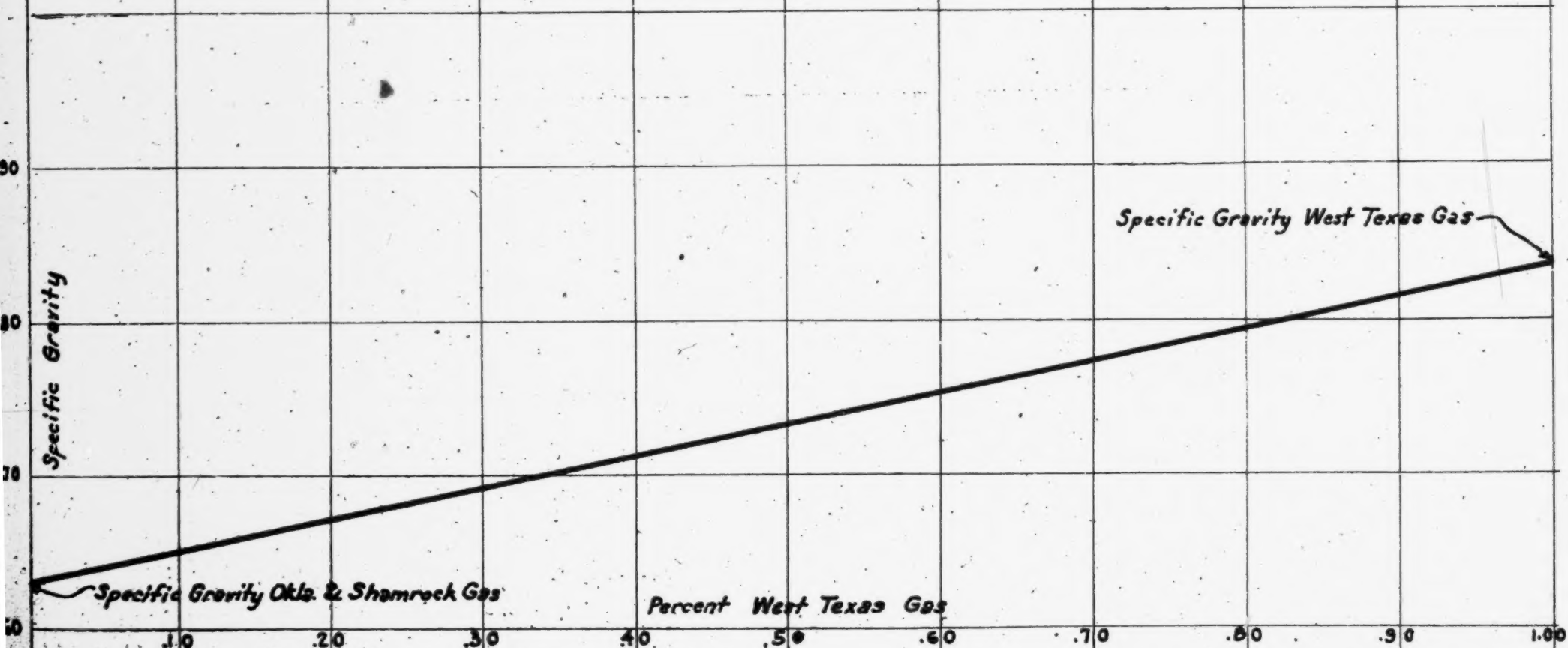
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LONE STAR GAS CO.

GRAPH SHOWING PERCENT WEST TEXAS GAS FOR DIFFERENT
SPECIFIC GRAVITIES

AUGUST 1933

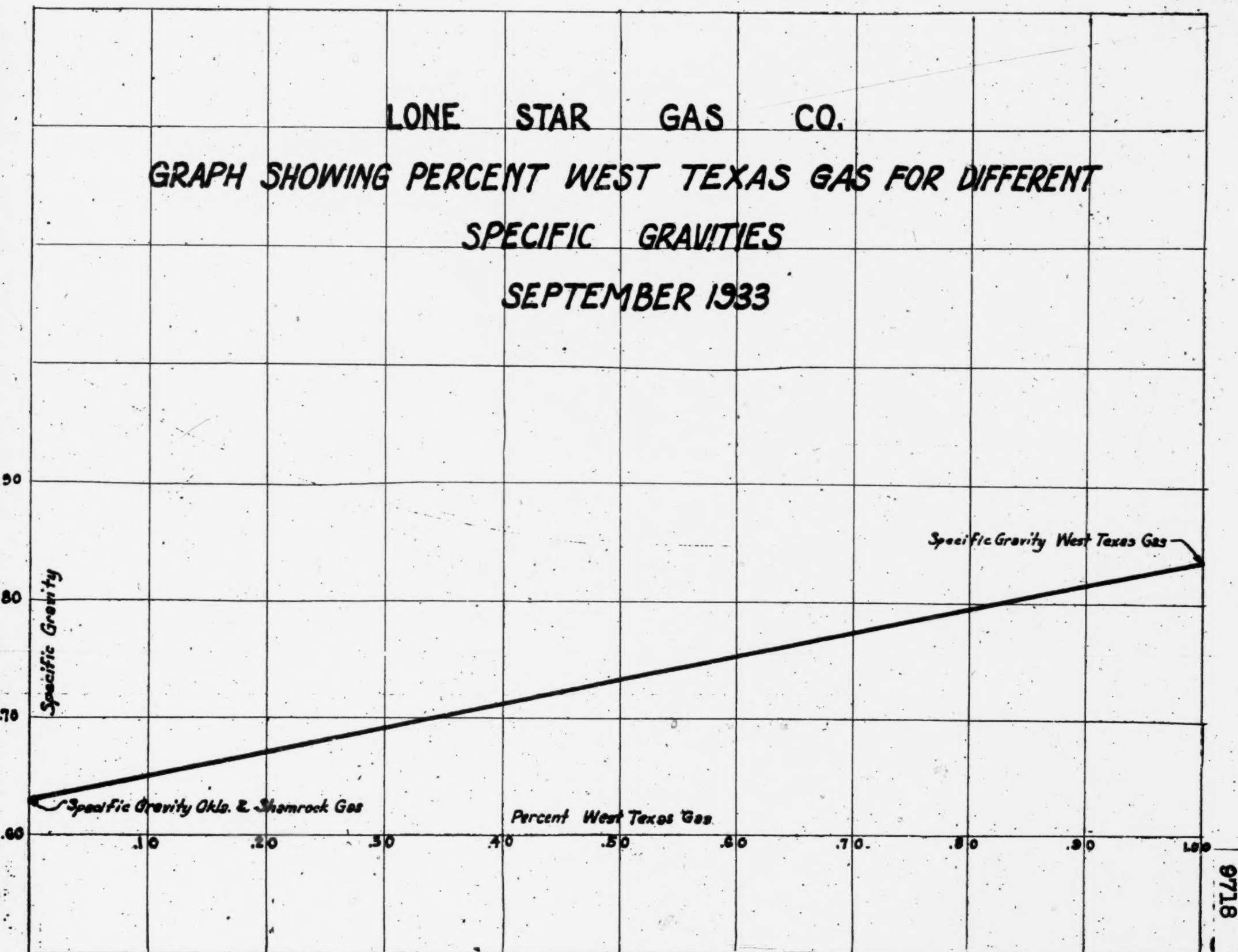


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LONE STAR GAS CO.

GRAPH SHOWING PERCENT WEST TEXAS GAS FOR DIFFERENT
SPECIFIC GRAVITIES
SEPTEMBER 1933

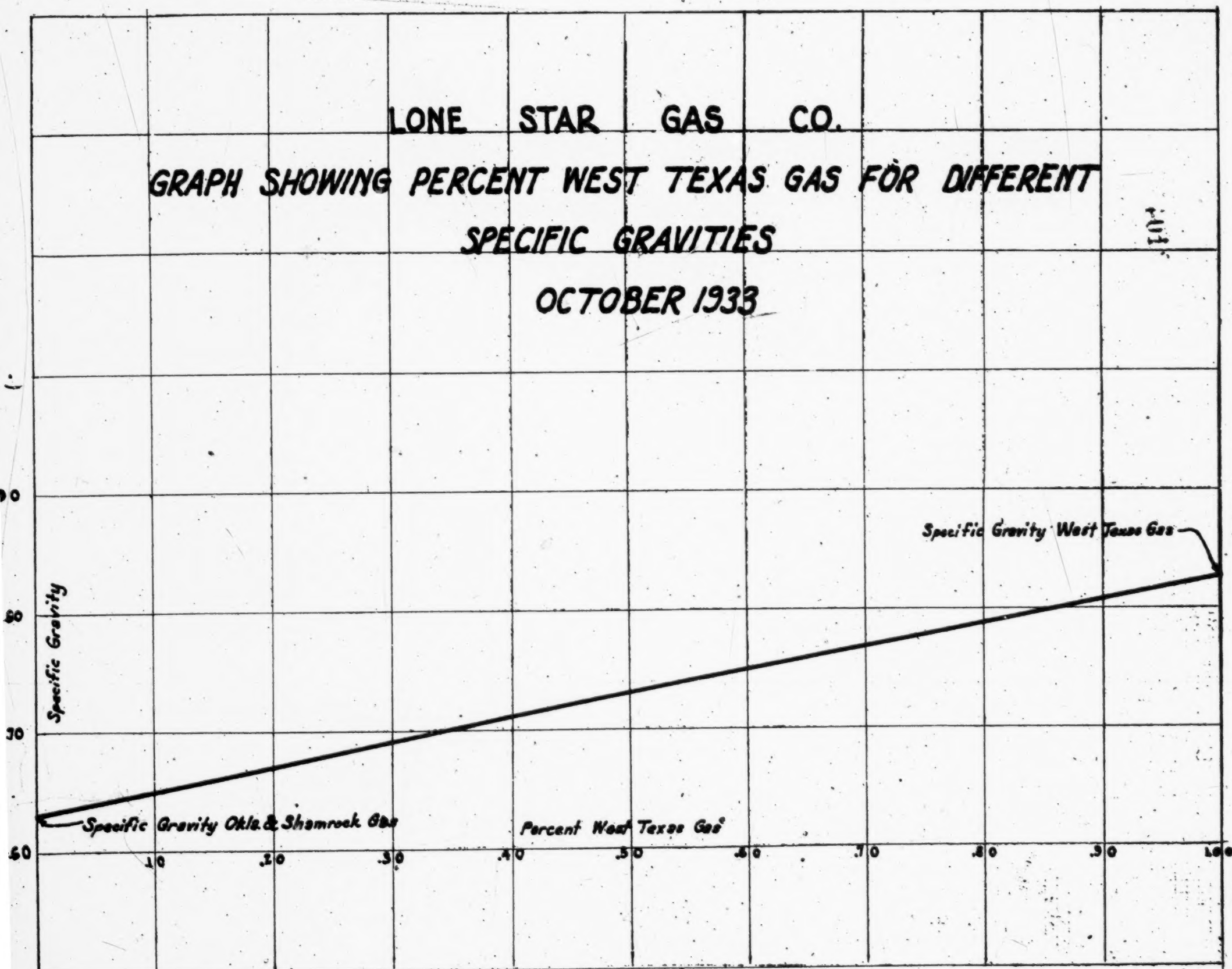


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LONE STAR GAS CO.

GRAPH SHOWING PERCENT WEST TEXAS GAS FOR DIFFERENT
SPECIFIC GRAVITIES
OCTOBER 1933



Specific Gravity West Texas Gas

Specific Gravity Okla. & Shamrock Gas

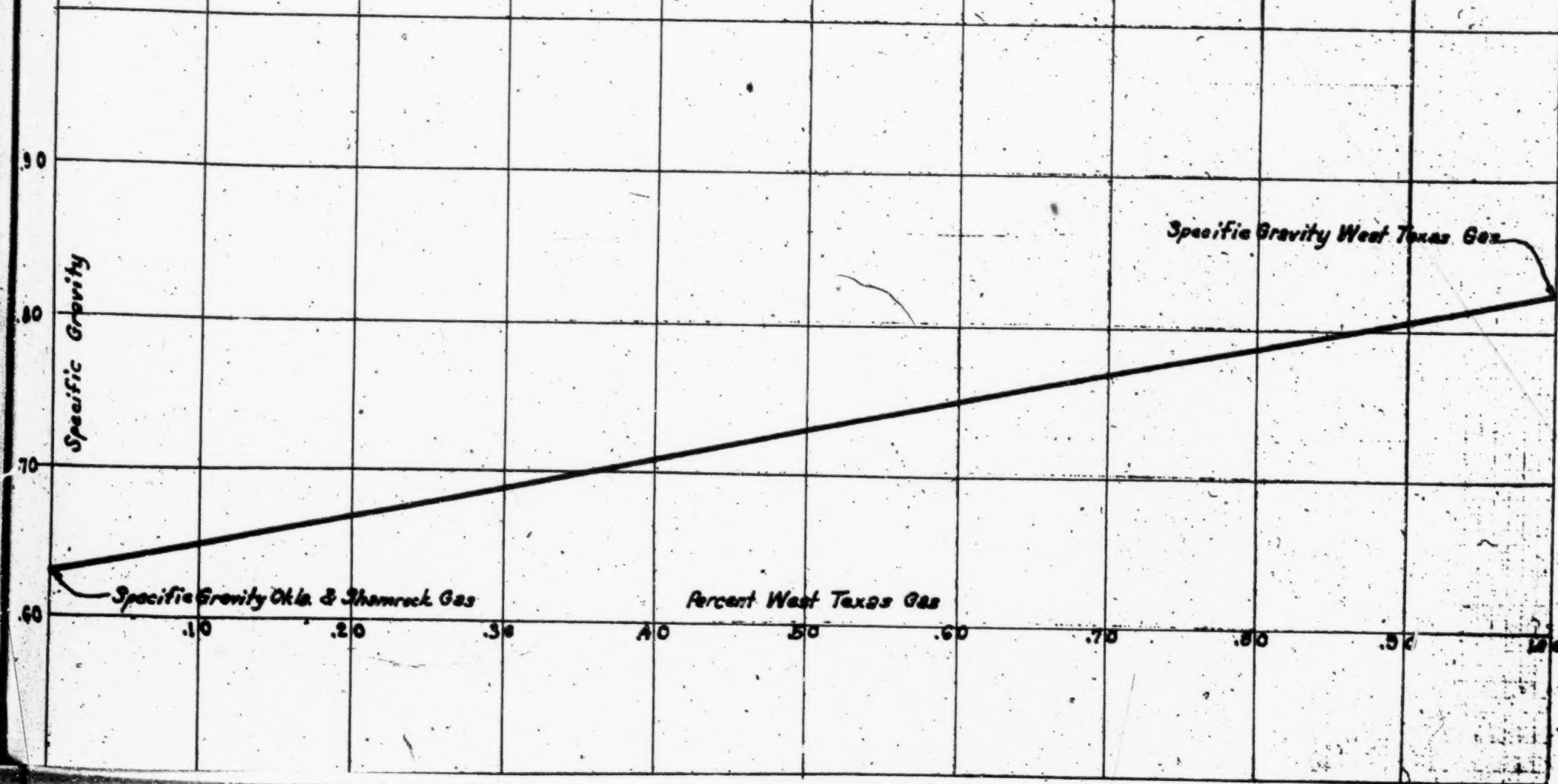
Percent West Texas Gas

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LONE STAR GAS CO.

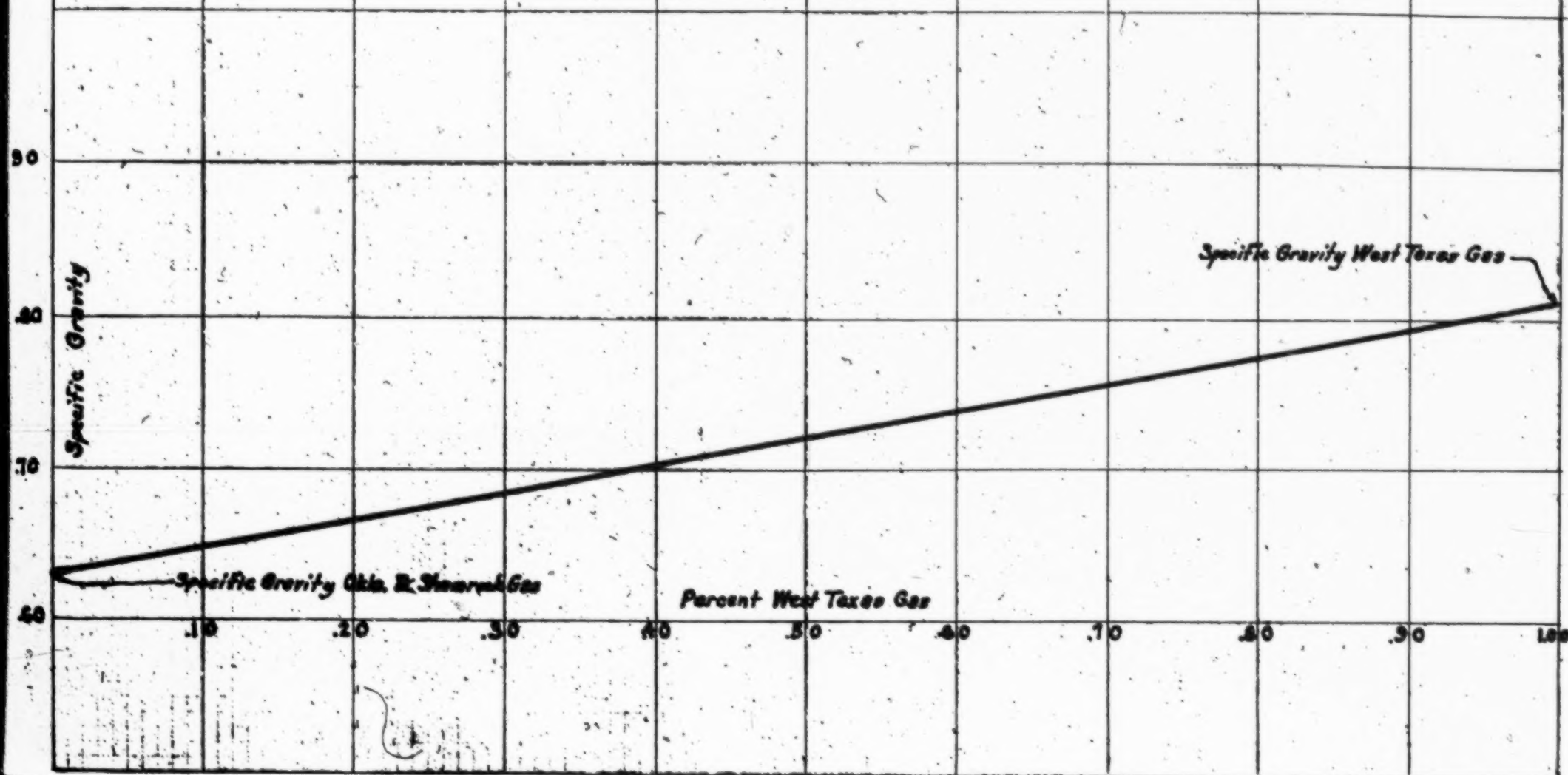
GRAPH SHOWING PERCENT WEST TEXAS GAS FOR DIFFERENT
SPECIFIC GRAVITIES
NOVEMBER 1933



9720

LONE STAR GAS - CO.

GRAPH SHOWING PERCENT WEST TEXAS GAS FOR DIFFERENT
SPECIFIC GRAVITIES
DECEMBER 1933



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[fol. 9723] DEFENDANT'S EXHIBIT No. 46

Lone Star Gas Company

Report on Property, Revenues and Expenses Within
Specified Areas

Year 1933

[fol. 9724] Dallas, Texas, June 30th, 1934.

Lone Star Gas Company, Dallas, Texas.

GENTLEMEN :

As requested by you, I have prepared and tender herewith, report covering property, revenues, and expenses of Lone Star Gas Company, Public Service Operations, for the calendar year 1933.

This report has been prepared upon the basis of segregating property and business between defined areas, and in order to do this it has been necessary to collaborate with Messrs. E. F. Schmidt and Ed C. Connor, who have made rather extensive studies covering that portion of the system where a joint or concurrent use of facilities occurs. The results of their studies have been prepared in report form, a copy of which was furnished to me, and specific reference is made to such report insofar as it pertains to use of property and sale of gas in that portion of the pipe-line system that is jointly and/or concurrently used.

The public service property and business of Lone Star Gas Company has been divided in this report as follows:

Area "A"—Gas sales, expenses, and property used in connection with gas purchased and produced in Texas, transported and sold wholly within the State of Texas, and in areas where the source of supply can be easily defined.

[fol. 9724½] *Area "B"*—Gas sales, expenses, and property used in connection with gas purchased and produced in Texas and/or Oklahoma, transported through and sold in the States of Oklahoma and/or Texas, and areas where the source of supply can be easily defined.

Area "C"—Gas sales, expenses, and property used in connection with gas purchased and produced in both Okla-

homa and Texas, where the sale thereof and facilities used, are joint and concurrent.

The total property account, revenues and expenses of Lone Star Gas Company, Public Service Operations, have been divided into the three areas shown above. The production, gathering and transportation system of the company is so arranged that under normal operating conditions it becomes very easy to segregate the property and business into Areas "A" and "B"; however, it requires rather extensive studies to define just what part of the property and business should be included in Area "C". As mentioned before, this area has been defined and is set out in report prepared by Messrs. Schmidt and Connor.

After dividing the Public Service Property and business of the company into the three areas set out above, it was then necessary to further classify such property and business as follows:

"D" Operations—Gas sales, expenses, and property used in connection with gas purchased and produced in the State of Texas, transported and sold wholly within the State of Texas. ("D" Operations include all items shown in Area "A" plus a portion of Area "C".)

[fols. 9725-9728] *"E" Operations*—Gas sales, expenses, and property used in connection with gas purchased and produced in the State of Texas and/or Oklahoma, transported through and sold in the State of Oklahoma and/or Texas. ("E" Operations include all items shown in Area "B" plus a portion of Area "C".)

Tabulated statements have been prepared and are included in this report, showing sales, operating expenses, and property by locations, and I believe in sufficient detail to enable the easy verification thereof.

D. A. Hulcy.

Lone Star Gas Company
Public Service Operations

Statement of Revenues, Expenses and Amount Available for Depreciation and Return
Property Account—Actual Cost as Reflected by Books
Twelve Months Ended December 31st, 1933

Applicable to

	Total	"D" Operations	"E" Operations
Operating Revenues:			
Gas Sales.....	\$7,688,724.10	\$5,619,684.64	\$2,069,039.46
Miscellaneous Operating Revenues.....	1,442.91	1,442.91	.....
Total.....	\$7,690,167.01	\$5,621,127.55	\$2,069,039.46
Operating Expenses:			
Gas Purchased.....	\$1,086,587.44	\$962,928.68	\$124,558.76
Production System Expense.....	105,554.86	76,956.69	28,598.17
Gathering System Expense.....	131,326.29	70,068.24	61,258.05
Transmission System Expense.....	431,520.56	280,020.70	151,499.86
Compressor Station Expense.....	338,433.01	253,516.28	84,916.73
New Business Expense.....	99,793.94	64,007.66	35,706.28
General Expense.....	859,234.88	551,798.64	307,436.24
Uncollectible Bills.....	6,530.77	4,555.25	1,975.52
Taxes—Other than Federal.....	360,476.91	221,192.90	139,284.01
Cancelled & Surrendered Leases.....	188,629.92	132,605.33	56,024.54
Total.....	\$3,608,088.58	\$2,616,830.42	\$991,258.16

Defendant's Exhibit No. 46—Continued

	Applicable to	
	"D" Operations	"E" Operations
Operating Earnings.....	\$4,082,078.43	\$3,004,297.13
Non-Operating Revenues.....	61,198.22	39,520.24
Gross Income.....	\$4,143,276.65	\$3,043,817.37
Non-Operating Revenue Deductions:		
Federal Income Tax.....	\$223,331.34	\$195,572.34
Other Non-Operating Deductions.....	27,196.73	17,465.74
Total.....	\$250,528.07	\$213,038.08
Amount Available for Depreciation and Return.....	\$3,892,748.58	\$2,830,779.29
Property Account:		
(Actual cost as Reflected by Books).....	\$49,837,026.06	\$32,080,146.32
Amount Available for Depreciation and Return:		
(Per Cent of Property Account).....	7.81	8.82
		5.98

Lone Star Gas Company

Public Service Operations

Statement of Revenues, Expenses and Amount Available for Depreciation and Return

Property Account—Actual Cost as Reflected by Books

(After Giving Effect to 32¢ Domestic Gate Rate)

Twelve Months Ended December 31st, 1933

Applicable to

	Total	"D" Operations	"E" Operations
Operating Revenues:			
Gas Sales.....	\$6,573,137.46	\$4,812,790.16	\$1,760,347.30
Miscellaneous Operating Revenues.....	1,442.91	1,442.91	.....
Total.....	<u>\$6,574,580.37</u>	<u>\$4,814,233.07</u>	<u>\$1,760,347.30</u>
Operating Expenses:			
Gas Purchased.....	\$1,086,587.44	\$962,028.68	\$124,558.76
Production System Expense.....	105,554.86	76,956.89	28,598.17
Gathering System Expense.....	131,326.29	70,068.24	61,258.05
Transmission System Expense.....	431,520.56	280,020.70	151,499.86
Compressor Station Expense.....	338,433.01	253,516.28	84,916.73
New Business Expense.....	99,793.94	64,087.66	35,706.28
General Expense.....	859,234.88	551,798.64	307,436.24
Uncollectible Bills.....	6,530.77	4,555.25	1,975.52
Taxes—Other than Federal.....	360,476.91	221,192.90	139,284.01
Cancelled & Surrendered Leases.....	188,629.92	132,605.38	56,024.54
Total.....	<u>\$3,608,088.58</u>	<u>\$2,616,830.42</u>	<u>\$991,258.16</u>

Defendant's Exhibit No. 46—Continued

	Applicable to	
	"D" Operations	"E" Operations
Operating Earnings.....	\$2,966,491.79	\$769,089.14
Non-Operating Revenues.....	61,198.22	21,677.98
Gross Income.....	\$3,027,690.01	\$790,767.12
Non-Operating Revenue Deductions:		
Federal Income Tax.....	\$69,938.27	†\$14,886.08
Other Non-Operating Deductions.....	27,196.73	9,730.99
Total.....	\$97,135.00	†\$24,955.09
Amount Available for Depreciation and Return.....	\$2,930,555.01	\$765,722.21
Property Account:		
(Actual Cost as Reflected by Books).....	\$49,837,026.06	\$32,080,146.32
Amount Available for Depreciation and Return:		
(Per Cent of Property Account).....	5.88	6.65
		4.48

† Red in copy.

Defendant's Exhibit No. 46—Continued

Lone Star Gas Company

Public Service Operations

Statement of Revenues, Expenses and Amount Available for Depreciation and Return

Property Account—Reproduction Cost New, Less Observed Depreciation

Twelve Months Ended December 31st, 1933

	Applicable to	
	"D" Operations	"E" Operations
Operating Revenues:		
Gas Sales.....	\$7,688,724.10	\$5,619,684.64
Miscellaneous Operating Revenues.....	1,442.91	1,442.91
Total.....	\$7,690,167.01	\$5,621,127.55
Operating Expenses:		
Gas Purchased.....	\$1,086,587.44	\$962,028.68
Production System Expense.....	105,554.86	76,956.69
Gathering System Expense.....	131,326.29	70,068.24
Transmission System Expense.....	431,520.56	280,020.70
Compressor Station Expense.....	338,433.01	253,516.28
New Business Expense.....	99,793.94	64,087.66
General Expense.....	859,234.88	551,798.64
Uncollectible Bills.....	6,530.77	4,555.25
Taxes—Other than Federal.....	360,476.91	221,192.90
Cancelled & Surrendered Leases.....	188,629.92	132,605.38
Total.....	\$3,608,088.58	\$2,616,830.42
		\$991,258.16

Defendant's Exhibit No. 46—Continued

	Applicable to	
	"D" Operations	"E" Operations
Operating Earnings.....	\$4,082,078.43	\$1,077,781.30
Non-Operating Revenues.....	61,198.22	21,677.98
Gross Income.....	\$4,143,276.65	\$1,099,459.28
Non-Operating Revenue Deductions:		
Federal Income Tax.....	\$140,088.20	†\$12,372.83
Other Non-Operating Deductions.....	27,196.73	17,465.74
Total.....	\$167,284.93	†\$2,641.84
Amount Available for Depreciation and Return.....	\$3,975,991.72	\$1,102,101.12
Property Account:		
Present value shown by P. M. Biddison in Appraisal dated Jan. 1st, 1933 (Before Going Concern Value).....	\$61,945,133.16	\$23,594,250.84
Amount Available for Depreciation and Return: (Per Cent of Property Account).....	6.42	7.49
		4.66

Statement of Revenues, Expenses and Amount Available for Depreciation and Return
Property Account—Reproduction Cost New, Less Observed Depreciation
(After Giving Effect to 32¢ Domestic Gate Rate)

Twelve Months Ended December 31st, 1933

Applicable to

	Total	"D" Operations	"E" Operations
Operating Revenues:			
Gas Sales	\$6,573,137.46	\$4,812,790.16	\$1,760,347.30
Miscellaneous Operating Revenues	1,442.91	1,442.91	.....
Total	\$6,574,580.37	\$4,814,233.07	\$1,760,347.30
Operating Expenses:			
Gas Purchased	\$1,086,587.44	\$962,028.68	\$124,558.76
Production System Expense	105,554.86	76,956.69	28,598.17
Gathering System Expense	131,328.29	70,068.24	61,258.05
Transmission System Expense	431,520.56	280,020.70	151,499.86
Compressor Station Expense	338,433.01	253,516.28	84,916.73
New Business Expense	99,793.94	64,087.66	35,706.28
General Expense	859,234.88	551,798.64	307,436.24
Uncollectible Bills	6,530.77	4,555.25	1,975.52
Taxes—Other than Federal	360,476.91	221,192.90	139,284.01
Cancelled & Surrendered Leases	188,629.92	132,605.38	56,024.54
Total	\$3,608,088.58	\$2,616,830.42	\$991,258.16

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Defendant's Exhibit No. 46—Continued

	Total	Applicable to	
		"D" Operations	"E" Operations
Operating Earnings.....	\$2,966,491.79	\$2,197,402.65	\$769,089.14
Non-Operating Revenues.....	61,198.22	39,520.24	21,677.98
Gross Income.....	\$3,027,690.01	\$2,236,922.89	\$790,767.12
Non-Operating Revenue Deductions:			
Federal Income Tax.....			
Other Non-Operating Deductions.....	\$27,196.73	\$17,465.74	\$9,730.99
Total.....	\$27,196.73	\$17,465.74	\$9,730.99
Amount Available for Depreciation and Return.....	\$3,000,493.28	\$2,219,457.15	\$781,036.13
Property Account:			
Present value shown by P. M. Biddison in Appraisal dated Jan. 1st, 1933 (Before Going Concern Value).....	\$61,945,133.16	\$38,350,882.32	\$23,594,250.84
Amount Available for Depreciation and Return:			
(Per Cent of Property Account).....	4.84	5.78	3.31

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Gas Sales

Summary of Gas Sales—By Companies

Twelve Months Ended December 31st, 1933

	Total		Applicable to Area "A"		Applicable to Area "B"		Applicable to Area "C"		Applicable to "D" Operations		Applicable to "E" Operations	
	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount
Dallas & County Gas Co.'s:												
Domestic.....	4,814,444	\$1,925,722.20	1,638,513	\$655,405.20			3,175,931	\$1,270,317.00	3,900,973	\$1,560,389.20	913,471	\$365,333.00
Industrial.....	2,848,717	407,515.24	942,610	134,842.43			1,906,107	272,672.81	2,428,796	347,444.63	419,921	60,070.61
Total.....	7,663,161	\$2,333,237.44	2,581,123	\$790,247.63			5,082,038	\$1,542,989.81	6,329,769	\$1,907,833.83	1,333,392	\$425,403.61
Fort Worth Division:												
Domestic.....	2,419,107	\$967,642.36	258,798	\$103,518.76			2,160,309	\$864,123.60	1,384,327	\$553,730.36	1,034,780	\$413,912.00
Industrial.....	2,514,422	326,344.96	193,050	25,055.80			2,321,372	301,289.16	1,685,525	218,763.25	828,897	107,581.71
Total.....	4,933,529	\$1,293,987.32	451,848	\$128,574.56			4,481,681	\$1,165,412.76	3,069,852	\$772,493.61	1,863,677	\$521,493.71
Community Natural Gas Co.:												
Domestic.....	3,763,538	\$1,510,546.43	2,737,080	\$1,101,790.82	657,445	\$261,415.85	369,013	\$147,339.76	2,958,612	\$1,190,297.75	804,926	\$320,248.68
Industrial.....	4,432,953	566,110.11	2,198,297	317,209.28	2,126,674	227,258.45	107,982	21,642.38	2,273,506	332,341.87	2,159,447	233,768.24
Total.....	8,196,491	\$2,076,656.54	4,935,377	\$1,419,000.10	2,784,119	\$488,674.30	476,995	\$168,982.14	5,232,118	\$1,522,639.62	2,964,373	\$554,016.92
Municipal Gas Company:												
Domestic.....	1,985,170	\$794,068.00	507,440	\$202,977.00	644,653	\$257,860.20	833,077	\$333,230.80	1,003,505	\$401,403.00	981,665	\$392,665.00
Industrial.....	1,217,081	196,885.24	483,465	77,174.80	75,822	15,989.46	657,794	103,720.98	944,559	149,904.35	272,522	46,980.89
Total.....	3,202,251	\$990,953.24	990,905	\$280,151.80	720,475	\$273,849.66	1,490,871	\$436,951.78	1,948,064	\$551,307.35	1,254,187	\$439,645.89
Gainesville Gas & Elec. Co.:												
Domestic.....	138,820	\$55,528.00					138,820	\$55,528.00	107,100	\$42,840.00	31,720	\$12,688.00
Industrial.....	85,848	13,553.68					85,348	13,553.68	70,668	11,222.50	14,680	2,331.18
Total.....	224,168	\$69,081.68					224,168	\$69,081.68	177,768	\$54,062.50	46,400	\$15,019.18
Southwestern Lt. & Power Co.:												
Domestic.....	19,591	\$7,836.40			19,591	\$7,836.40					19,591	\$7,836.40
Industrial.....	2,486	532.13			2,486	532.13					2,486	532.13
Total.....	22,077	\$8,368.53			22,077	\$8,368.53					22,077	\$8,368.53
(fol. 9735)												
Texas Cities Gas Co.:												
Domestic.....	740,336	\$296,134.60	566,470	\$226,588.44			173,866	\$69,546.16	670,233	\$268,093.64	70,103	\$28,040.96
Industrial.....	414,524	68,814.70	334,629	53,747.07			79,895	15,067.63	387,981	63,777.25	26,543	5,037.45
Total.....	1,154,860	\$364,949.30	901,099	\$280,335.51			253,761	\$84,613.79	1,058,214	\$331,870.89	96,646	\$33,078.41
Waxahachie Gas Co.:												
Domestic.....	61,431	\$24,572.12	61,431	\$24,572.12					61,431	\$24,572.12		
Industrial.....	8,191	1,995.75	8,191	1,995.75					8,191	1,995.75		
Total.....	69,622	\$26,567.87	69,622	\$26,567.87					69,622	\$26,567.87		
Shasta Oil Company:												
Domestic.....	2,396	\$958.40			2,396	\$958.40					2,396	\$958.40
Industrial.....	136,711	15,038.21			136,711	15,038.21					136,711	15,038.21
Total.....	139,107	\$15,996.61			139,107	\$15,996.61					139,107	\$15,996.61
Miscellaneous:												
Domestic.....												
Industrial.....	3,715,879	\$412,818.52	3,103,944	\$343,677.18	44,835	\$6,217.06	567,100	\$62,924.28	3,473,189	\$384,607.67	242,690	\$28,210.85
Total.....	3,715,879	\$412,818.52	3,103,944	\$343,677.18	44,835	\$6,217.06	567,100	\$62,924.28	3,473,189	\$384,607.67	242,690	\$28,210.85
Compressors & Driers:												
Domestic.....												
Industrial.....	1,517,249	\$96,107.05	1,093,356	\$65,601.36	189,617	\$12,705.18	234,276	\$17,800.51	1,125,983	\$68,301.30	391,266	\$27,805.75
Total.....	1,517,249	\$96,107.05	1,093,356	\$65,601.36	189,617	\$12,705.18	234,276	\$17,800.51	1,125,983	\$68,301.30	391,266	\$27,805.75
Grand Total:												
Domestic.....	13,944,833	\$5,583,008.51	5,769,732	\$2,314,852.34	1,324,085	\$528,070.85	6,851,016	\$2,740,085.32	10,086,181	\$4,041,326.07	3,858,652	\$1,541,682.44
Industrial.....	16,893,561	2,165,715.59	8,357,542	1,019,303.67	2,576,145	277,740.49	5,959,874	808,671.43	12,398,398	1,578,358.57	4,495,163	527,357.02
Total.....	30,838,394	\$7,688,724.10	14,127,274	\$3,334,156.01	3,900,230	\$805,811.34	12,810,890	\$3,548,756.75	22,484,579	\$5,619,684.64	8,353,815	\$2,069,039.46

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Summary of Gas Sales—By Locations

Twelve Months Ended December 31st, 1933

Western, Southern, and Eastern System:		Twelve Months Ended December 31st, 1933	
Dallas & County Gas Co's.....	2,581,123	\$790,247.63	2,581,123 \$790,247.63
Ft. Worth Division.....	451,848	128,574.56	451,848 128,574.56
Community Natural Gas Co.....	4,935,377	1,419,000.10	4,935,377 1,419,000.10
Municipal Gas Company.....	990,905	280,151.80	990,905 280,151.80
Texas Cities Gas Co.....	901,099	280,335.51	901,099 280,335.51
Waxahachie Gas Co.....	69,622	26,567.87	69,622 26,567.87
Miscellaneous Sales.....	2,123,241	623,377.18	2,123,241 623,377.18

Western, Southern, and Eastern System:

Dallas & County Gas Co's.....	2,581,123	\$790,247.63	2,581,123	\$790,247.63					2,581,123	\$790,247.63		
Ft. Worth Division.....	451,848	128,574.56	451,848	128,574.56					451,848	128,574.56		
Community Natural Gas Co.....	4,935,377	1,419,000.10	4,935,377	1,419,000.10					4,935,377	1,419,000.10		
Municipal Gas Company.....	990,905	280,151.80	990,905	280,151.80					990,905	280,151.80		
Texas Cities Gas Co.....	901,099	280,335.51	901,099	280,335.51					901,099	280,335.51		
Waxahachie Gas Co.....	69,622	26,567.87	69,622	26,567.87					69,622	26,567.87		
Miscellaneous Sales.....	3,103,944	343,677.18	3,103,944	343,677.18					3,103,944	343,677.18		
Compressors & Driers.....	1,093,356	65,601.36	1,093,356	65,601.36					1,093,356	65,601.36		
Total.....	14,127,274	\$3,334,156.01	14,127,274	\$3,334,156.01					14,127,274	\$3,334,156.01		
System:												
Community Natural Gas Co.....	2,050,761	\$273,957.83			2,050,761	\$273,957.83					2,050,761	\$273,957.83
Municipal Gas Company.....	696,690	265,128.23			696,690	265,128.23					696,690	265,128.23
Shasta Oil Company.....	139,107	15,996.61			139,107	15,996.61					139,107	15,996.61
Miscellaneous Sales.....	23,671	1,836.00			23,671	1,836.00					23,671	1,836.00
Compressors & Gas Driers.....	378,208	25,937.19			156,413	9,384.78	221,795	\$16,552.41	22,180	\$1,655.24	356,028	24,281.95
Total.....	3,288,437	\$582,855.86			3,066,642	\$566,303.45	221,795	\$16,552.41	22,180	\$1,655.24	3,266,257	\$581,200.62
System:												
Ft. Worth Division.....	4,481,681	\$1,165,412.76					4,481,681	\$1,165,412.76	2,618,004	\$643,919.05	1,863,677	\$521,493.71
Community Natural Gas Co.....	46,593	18,109.51					46,593	18,109.51	6,913	2,692.18	39,680	15,417.33
Municipal Gas Company.....	161,932	53,491.52					161,932	53,491.52	24,992	8,047.88	136,940	45,443.64
Miscellaneous Sales.....	236,308	25,981.66					236,308	25,981.66	125,045	13,834.39	111,263	12,147.27
Total.....	4,926,514	\$1,262,995.45					4,926,514	\$1,262,995.45	2,774,954	\$668,493.50	2,151,560	\$594,501.95
System:												
Dallas & County Gas Co's.....	4,676,811	\$1,422,772.41					4,676,811	\$1,422,772.41	3,421,523	\$1,021,809.60	1,255,288	\$400,962.81
Community Natural Gas Co.....	21,812	8,073.26					21,812	8,073.26	17,137	6,307.04	4,675	1,766.22
Miscellaneous Sales.....	186,205	22,483.92					186,205	22,483.92	157,448	18,420.90	28,757	4,063.02
Total.....	4,884,828	\$1,453,329.59					4,884,828	\$1,453,329.59	3,596,108	\$1,046,537.54	1,288,720	\$406,792.05
System:												
Community Natural Gas Co.....	517,314	\$168,237.78			236,290	\$72,694.76	281,024	\$95,543.02	173,396	\$58,076.44	343,918	\$110,161.34
Municipal Gas Company.....	764,636	222,129.16					764,636	222,129.16	481,199	136,563.64	283,437	85,565.52
Texas Cities Gas Company.....	253,761	84,613.79					253,761	84,613.79	157,115	51,535.38	96,646	33,078.41
Total.....	1,535,711	\$474,980.73			236,290	\$72,694.76	1,299,421	\$402,285.97	811,710	\$246,175.46	724,001	\$228,805.27

Defendant's Exhibit No. 46—Continued

Gas Sales—Continued

Summary of Gas Sales—By Locations

Twelve Months Ended December 31st, 1933

	Total		Applicable to Area "A"		Applicable to Area "B"		Applicable to Area "C"		Applicable to "D" Operations		Applicable to "E" Operations	
	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount
F-System:												
Community Natural Gas Co.	108,614	\$41,020.46					108,614	\$41,020.46	84,327	\$31,690.25	24,287	\$9,330.21
Municipal Gas Company	564,303	161,331.10					564,303	161,331.10	450,968	126,544.03	113,335	34,787.07
Compressors & Gas Driers	12,481	1,248.10					12,481	1,248.10	10,447	1,044.70	2,034	203.40
Total	685,398	\$203,599.66					685,398	\$203,599.66	545,742	\$159,278.98	139,656	\$44,320.68
G-System:												
Community Natural Gas Co.	401,468	\$110,736.22			382,516	\$104,500.33	18,952	\$6,235.89	14,968	\$4,873.61	386,500	\$105,862.61
Gainesville Gas & Elec. Co.	224,168	69,081.68					224,168	69,081.68	177,768	54,062.50	46,400	15,019.18
Miscellaneous Sales	9,074	2,385.39			9,074	2,385.39					9,074	2,385.39
Compressors & Gas Driers	5,440	544.00			5,440	544.00					5,440	544.00
Total	640,150	\$182,747.29			397,030	\$107,429.72	243,120	\$75,317.57	192,736	\$58,936.11	447,414	\$123,811.18
H-System:												
Community Natural Gas Co.	114,552	\$37,521.38			114,552	\$37,521.38					114,552	\$37,521.38
Municipal Gas Company	23,785	8,721.43			23,785	8,721.43					23,785	8,721.43
Southwestern Lt. & Power Co.	22,077	8,368.53			22,077	8,368.53					22,077	8,368.53
Miscellaneous Sales	12,090	1,995.67			12,090	1,995.67					12,090	1,995.67
Compressors & Gas Driers	27,764	2,776.40			27,764	2,776.40					27,764	2,776.40
Total	200,268	\$59,383.41			200,268	\$59,383.41					200,268	\$59,383.41
J-2 System:												
Dallas & County Gas Co's.	405,227	\$120,217.40					405,227	\$120,217.40	327,123	\$95,776.60	78,104	\$24,440.80
Petrolia Field:												
Miscellaneous Sales	144,587	\$14,458.70					144,587	\$14,458.70	86,752	\$8,675.20	57,835	\$5,783.50
Grand Total	30,838,394	\$7,688,724.10	14,127,274	\$3,334,156.01	3,900,230	\$805,811.34	12,810,890	\$3,548,756.75	22,484,579	\$5,619,684.64	8,353,815	\$2,069,039.46

(fol. 9738)

Statement of Gas Sales—By Companies

Twelve Months Ended December 31st, 1933

Dallas & County Gas Co's:												
Hudnall & Central Stations:												
Domestic	2,914,940	\$1,165,976.00					2,914,940	\$1,165,976.00	2,057,875	\$823,150.00	857,065	\$342,826.00
Industrial	1,701,950	243,467.69					1,701,950	243,467.69	1,314,097	187,984.47	387,853	55,483.22
Total	4,616,890	\$1,409,443.69					4,616,890	\$1,409,443.69	3,371,972	\$1,011,134.47	1,244,918	\$398,309.22
Boundary Station:												
Domestic	162,678	\$65,015.80					162,678	\$65,015.80	115,614	\$46,245.60	47,064	\$18,770.20
Industrial	76,561	10,952.22					76,561	10,952.22	55,719	7,970.73	20,842	2,981.49
Total	239,239	\$75,968.02					239,239	\$75,968.02	171,333	\$54,216.33	67,906	\$21,751.69
Arlington, Dalworth, etc.:												
Domestic	79,800	\$31,920.00					79,800	\$31,920.00	75,012	\$30,004.80	4,788	\$1,915.20
Industrial	86,188	12,329.38					86,188	12,329.38	80,778	11,555.47	5,410	773.91
Total	165,988	\$44,249.38					165,988	\$44,249.38	155,790	\$41,560.27	10,198	\$2,689.11
West Dallas:												
Domestic	18,513	\$7,405.20					18,513	\$7,405.20	13,959	\$5,583.60	4,554	\$1,821.60
Industrial	41,408	5,923.52					41,408	5,923.52	35,592	5,091.53	5,816	831.99
Total	59,921	\$13,328.72					59,921	\$13,328.72	49,551	\$10,675.13	10,370	\$2,653.59
Second Avenue—Lisbon:												
Domestic	1,638,513	\$655,405.20	1,638,513	\$655,405.20					1,638,513	\$655,405.20		
Industrial	942,610	134,842.43	942,610	134,842.43					942,610	134,842.43		
Total	2,581,123	\$790,247.63	2,581,123	\$790,247.63					2,581,123	\$790,247.63		
Grand Total:												
Domestic	4,814,444	\$1,925,722.20	1,638,513	\$655,405.20			3,175,931	\$1,270,317.00	3,900,973	\$1,560,389.20	913,471	\$365,333.00
Industrial	2,848,717	407,515.24	942,610	134,842.43			1,906,107	272,672.81	2,428,796	347,444.63	419,921	60,070.61
Total	7,663,161	\$2,333,237.44	2,581,123	\$790,247.63			5,082,038	\$1,542,989.81	6,329,769	\$1,907,833.83	1,333,392	\$425,403.61
Fort Worth Division:												
North Ft. Worth Station:												
Domestic	2,160,309	\$864,123.60					2,160,309	\$864,123.60	1,125,529	\$450,211.60	1,034,780	\$413,912.00
Industrial	2,321,372	301,289.16					2,321,372	301,289.16	1,492,475	193,707.45	828,897	107,581.71
Total	4,481,681	\$1,165,412.76					4,481,681	\$1,165,412.76	2,618,004	\$643,919.05	1,863,677	\$521,493.71
Haines & So. Ft. Worth Sta.:												
Domestic	258,798	\$103,518.76	258,798	\$103,518.76					258,798	\$103,518.76		
Industrial	193,050	25,055.80	193,050	25,055.80					193,050	25,055.80		
Total	451,848	\$128,574.56	451,848	\$128,574.56					451,848	\$128,574.56		
Grand Total:												
Domestic	2,419,107	\$967,642.36	258,798	\$103,518.76			2,160,309	\$864,123.60	1,384,327	\$553,730.36	1,034,780	\$413,912.00
Industrial	2,514,422	326,344.96	193,050	25,055.80			2,321,372	301,289.16	1,685,525	218,763.25	828,897	107,581.71
Total	4,933,529	\$1,293,987.32	451,848	\$128,574.56			4,481,681	\$1,165,412.76	3,069,852	\$772,493.61	1,863,677	\$521,493.71

(fol. 9739)

Domestic.....	2,419,107	\$967,642.36	258,798	\$103,518.76	.....	.....	2,180,309	\$864,125.60	1,384,327	\$553,730.36	1,034,780	\$413,912.00
Industrial.....	2,514,422	326,344.96	193,050	25,055.80	.....	.....	2,321,372	301,289.16	1,685,525	218,763.25	828,897	107,581.71
Total.....	4,933,529	\$1,293,987.32	451,848	\$128,574.56	.....	.....	4,481,681	\$1,165,412.76	3,069,852	\$772,493.61	1,863,677	\$521,493.71

[fol. 9739]

Community Natural Gas Co.:

Western, Southern, and Eastern Towns:

Domestic.....	2,737,080	\$1,101,790.82	2,737,080	\$1,101,790.82	.....	.....	.....	.....	2,737,080	\$1,101,790.82	.....	.....
Industrial.....	2,198,297	317,209.28	2,198,297	317,209.28	.....	.....	.....	.....	2,198,297	317,209.28	.....	.....
Total.....	4,935,377	\$1,419,000.10	4,935,377	\$1,419,000.10	.....	.....	.....	.....	4,935,377	\$1,419,000.10	.....	.....

A-System:

Domestic.....	251,135	\$99,865.14	.....	.....	251,135	\$99,865.14	.....	.....	.....	.....	251,135	\$99,865.14
Industrial.....	1,799,626	174,092.69	.....	.....	1,799,626	174,092.69	.....	.....	.....	.....	1,799,626	174,092.69
Total.....	2,050,761	\$273,957.83	.....	.....	2,050,761	\$273,957.83	.....	.....	.....	.....	2,050,761	\$273,957.83

B-System:

Domestic.....	44,123	\$17,542.70	.....	.....	44,123	\$17,542.70	.....	6,486	\$2,594.40	37,637	\$14,948.30
Industrial.....	2,470	566.81	.....	.....	2,470	566.81	.....	427	97.78	2,043	469.03
Total.....	46,593	\$18,109.51	.....	.....	46,593	\$18,109.51	.....	6,913	\$2,692.18	39,680	\$15,417.33

C-System:

Domestic.....	17,073	\$6,734.47	.....	.....	17,073	\$6,734.47	.....	13,095	\$5,165.15	3,978	\$1,569.32
Industrial.....	4,739	1,338.79	.....	.....	4,739	1,338.79	.....	4,042	1,141.89	697	196.90
Total.....	21,812	\$8,073.26	.....	.....	21,812	\$8,073.26	.....	17,137	\$6,307.04	4,675	\$1,766.22

E-System:

Domestic.....	344,076	\$137,599.21	.....	143,125	\$57,250.00	200,951	\$80,349.21	119,927	\$47,970.80	224,149	\$89,628.41
Industrial.....	173,238	30,638.57	.....	93,165	15,444.76	80,073	15,193.81	53,469	10,105.64	119,769	20,532.93
Total.....	517,314	\$168,237.78	.....	236,290	\$72,694.76	281,024	\$95,543.02	173,396	\$58,076.44	343,918	\$110,161.34

F-System:

Domestic.....	94,048	\$37,586.18	.....	.....	94,048	\$37,586.18	.....	72,135	\$28,820.98	21,913	\$8,765.20
Industrial.....	14,566	3,434.28	.....	.....	14,566	3,434.28	.....	12,192	2,869.27	2,374	565.01
Total.....	108,614	\$41,020.46	.....	.....	108,614	\$41,020.46	.....	84,327	\$31,690.25	24,287	\$9,330.21

G-System (Excl. of G-3):

Domestic.....	187,746	\$74,402.62	.....	187,746	\$74,402.62	.....	.....	.....	.....	187,746	\$74,402.62
Industrial.....	194,770	30,097.71	.....	194,770	30,097.71	.....	.....	.....	.....	194,770	30,097.71
Total.....	382,516	\$104,500.33	.....	382,516	\$104,500.33	.....	.....	.....	.....	382,516	104,500.33

G-3-System:

Domestic.....	12,818	\$5,127.20	.....	.....	12,818	\$5,127.20	.....	9,889	\$3,955.60	2,929	\$1,171.60
Industrial.....	6,134	1,108.69	.....	.....	6,134	1,108.69	.....	5,079	918.01	1,055	190.68
Total.....	18,952	\$6,235.89	.....	.....	18,952	\$6,235.89	.....	14,968	\$4,873.61	3,984	\$1,362.28

H-System:

Domestic.....	75,439	\$29,898.09	.....	75,439	\$29,898.09	.....	.....	.....	.....	75,439	\$29,898.09
Industrial.....	39,113	7,623.29	.....	39,113	7,623.29	.....	.....	.....	.....	39,113	7,623.29
Total.....	114,552	\$37,521.38	.....	114,552	\$37,521.38	.....	.....	.....	.....	114,552	\$37,521.38

Grand Total:

Domestic.....	3,763,538	\$1,510,546.43	2,737,080	\$1,101,790.82	657,445	\$261,415.85	369,013	\$147,339.76	2,958,612	\$1,190,297.75	804,926	\$320,248.68
Industrial.....	4,432,953	566,110.11	2,198,297	317,209.28	2,126,674	227,258.45	107,982	21,642.38	2,273,506	332,341.87	2,159,447	233,768.24
Total.....	8,196,491	\$2,076,656.54	4,935,377	\$1,419,000.10	2,784,119	\$488,674.30	476,995	\$168,982.14	5,232,118	\$1,522,639.62	2,964,373	\$554,016.92

Defendant's Exhibit No. 46—Continued

[fol. 9740]

Gas Sales—Continued
Summary of Gas Sales—By Companies
Twelve Months Ended December 31st, 1933

	Total		Applicable to Area "A"		Applicable to Area "B"		Applicable to Area "C"		Applicable to "D" Operations		Applicable to "E" Operations	
	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount
Municipal Gas Company:												
Southern Towns:												
Domestic.....	507,440	\$202,977.00	507,440	\$202,977.00					507,440	\$202,977.00		
Industrial.....	483,465	77,174.80	483,465	77,174.80					483,465	77,174.80		
Total.....	990,905	\$280,151.80	990,905	\$280,151.80					990,905	\$280,151.80		
A-System:												
Domestic.....	624,739	\$249,895.60			624,739	\$249,895.60					624,739	\$249,895.60
Industrial.....	71,951	15,232.63			71,951	15,232.63					71,951	15,232.63
Total.....	696,690	\$265,128.23			696,690	\$265,128.23					696,690	\$265,128.23
B-System:												
Domestic.....	116,767	\$46,706.80					116,767	\$46,706.80	17,165	\$6,866.00	99,602	\$39,840.80
Industrial.....	45,165	6,784.72					45,165	6,784.72	7,827	1,181.88	37,338	5,602.84
Total.....	161,932	\$53,491.52					161,932	\$53,491.52	24,992	\$8,047.88	136,940	\$45,443.64
E-System:												
Domestic.....	414,277	\$165,710.80					414,277	\$165,710.80	247,241	\$98,596.40	167,036	\$66,814.40
Industrial.....	350,359	56,418.36					350,359	56,418.36	233,958	37,667.24	116,401	18,751.12
Total.....	764,636	\$222,129.16					764,636	\$222,129.16	481,199	\$136,563.64	283,437	\$85,565.52
F-System:												
Domestic.....	302,033	\$120,813.20					302,033	\$120,813.20	231,659	\$92,663.60	70,374	\$28,149.60
Industrial.....	262,270	40,517.90					262,270	40,517.90	219,309	33,880.43	42,961	6,637.47
Total.....	564,303	\$161,331.10					564,303	\$161,331.10	450,968	\$126,544.03	113,335	\$34,787.07
H-System:												
Domestic.....	19,914	\$7,964.60			19,914	\$7,964.60					19,914	\$7,964.60
Industrial.....	3,871	756.83			3,871	756.83					3,871	756.83
Total.....	23,785	\$8,721.43			23,785	\$8,721.43					23,785	\$8,721.43
Grand Total:												
Domestic.....	1,985,170	\$794,068.00	507,440	\$202,977.00	644,653	\$257,860.20	833,077	\$333,230.80	1,003,505	\$401,403.00	981,665	\$392,665.00
Industrial.....	1,217,081	196,885.24	483,465	77,174.80	75,822	15,989.46	657,794	103,720.98	944,559	149,904.35	272,522	46,980.89
Total.....	3,202,251	\$990,953.24	990,905	\$280,151.80	720,475	\$273,849.66	1,490,871	\$436,951.78	1,948,064	\$551,307.35	1,254,187	\$439,645.89
Gainesville Gas & Elec. Co.:												
G-F-System:												
Domestic.....	138,820	\$55,528.00					138,820	\$55,528.00	107,100	\$42,840.00	31,720	\$12,688.00
Industrial.....	85,348	13,553.68					85,348	13,553.68	70,668	11,222.50	14,680	2,331.18
Total.....	224,168	\$69,081.68					224,168	\$69,081.68	177,768	\$54,062.50	46,400	\$15,019.18
Southwestern Light & Power Co.:												
H-System:												
Domestic.....	19,591	\$7,836.40			19,591	\$7,836.40					19,591	\$7,836.40
Industrial.....	2,486	532.13			2,486	532.13					2,486	532.13
Total.....	22,077	\$8,368.53			22,077	\$8,368.53					22,077	\$8,368.53
[fol. 9741]												
Texas Cities Gas Company:												
Southern Towns—Waco:												
Domestic.....	566,470	\$226,588.44	566,470	\$226,588.44					566,470	\$226,588.44		
Industrial.....	334,629	53,747.07	334,629	53,747.07					334,629	53,747.07		
Total.....	901,099	\$280,335.51	901,099	\$280,335.51					901,099	\$280,335.51		
E-System—Paris:												
Domestic.....	173,866	\$69,546.16					173,866	\$69,546.16	103,763	\$41,505.20	70,103	\$28,040.96
Industrial.....	79,895	15,067.63					79,895	15,067.63	53,352	10,030.18	26,543	5,037.45
Total.....	253,761	\$84,613.79					253,761	\$84,613.79	157,115	\$51,535.38	96,646	\$33,078.41
Grand Total:												
Domestic.....	740,336	\$296,134.60	566,470	\$226,588.44			173,866	\$69,546.16	670,233	\$268,093.64	70,103	\$28,040.96
Industrial.....	414,524	68,814.70	334,629	53,747.07			79,895	15,067.63	387,981	63,777.25	26,543	5,037.45
Total.....	1,154,860	\$364,949.30	901,099	\$280,335.51			253,761	\$84,613.79	1,058,214	\$331,870.89	96,646	\$33,078.41
Waxahachie Gas Company:												
Southern Towns—Waxahachie:												
Domestic.....	61,431	\$24,572.12	61,431	\$24,572.12					61,431	\$24,572.12		
Industrial.....	8,191	1,995.75	8,191	1,995.75					8,191	1,995.75		
Total.....	69,622	\$26,567.87	69,622	\$26,567.87					69,622	\$26,567.87		
Shasta Oil Company:												
A-System:												
Domestic.....	2,396	\$958.40			2,396	\$958.40					2,396	\$958.40
Industrial.....	136,711	15,038.21			136,711	15,038.21					136,711	15,038.21

Waxahachie Gas Company:

Southern Towns—Waxahachie:

Domestic.....	61,431	\$24,572.12	61,431	\$24,572.12					61,431	\$24,572.12		
Industrial.....	8,191	1,995.75	8,191	1,995.75					8,191	1,995.75		
Total.....	69,622	\$26,567.87	69,622	\$26,567.87					69,622	\$26,567.87		

Shasta Oil Company:

A-System:

Domestic.....	2,396	\$958.40			2,396	\$958.40					2,396	\$958.40
Industrial.....	136,711	15,038.21			136,711	15,038.21					136,711	15,038.21
Total.....	139,107	\$15,996.61			139,107	\$15,996.61					139,107	\$15,996.61

Miscellaneous Sales:

Petrolia Field.....	144,587	\$14,458.70					144,587	\$14,458.70	86,752	\$8,675.20	57,835	\$5,783.50
Western, Southern, and Eastern Territory.....	3,103,944	343,677.18	3,103,944	\$343,677.18					3,103,944	343,677.18		
A-System.....	23,671	1,836.00			23,671	\$1,836.00					23,671	1,836.00
B-System.....	236,308	25,981.66					236,308	25,981.66	125,045	13,834.39	111,263	12,147.27
C-System.....	186,205	22,483.92					186,205	22,483.92	157,448	18,420.90	28,757	4,063.02
G-System.....	9,074	2,385.39			9,074	2,385.39					9,074	2,385.39
H-System.....	12,090	1,995.67			12,090	1,995.67					12,090	1,995.67
Total.....	3,715,879	\$412,818.52	3,103,944	\$343,677.18	44,835	\$6,217.06	567,100	\$62,924.28	3,473,189	\$384,607.67	242,690	\$28,210.85

[fol. 9742]

Compressors & Gas Driers:

Hollis, Oklahoma.....	156,413	\$9,384.78			156,413	\$9,384.78					156,413	\$9,384.78
Gas City, Oklahoma.....	27,764	2,776.40			27,764	2,776.40					27,764	2,776.40
Fox, Oklahoma.....	4,680	468.00			4,680	468.00					4,680	468.00
Loco, Oklahoma.....	760	76.00			760	76.00					760	76.00
Brasos, Texas.....	2,604	156.24	2,604	\$156.24					2,604	\$156.24		
Cheaney, Texas.....	32,264	1,935.84	32,264	1,935.84					32,264	1,935.84		
Desdemona, Texas.....	27,305	1,638.30	27,305	1,638.30					27,305	1,638.30		
Gainesville, Texas.....	12,481	1,248.10					12,481	\$1,248.10	10,447	1,044.70	2,034	203.40
Gordon, Texas.....	216,693	13,001.58	216,693	13,001.58					216,693	13,001.58		
Petrolia, Texas.....	221,795	16,552.41					221,795	16,552.41	22,180	1,655.24	199,615	14,897.17
Pueblo, Texas.....	21,567	1,294.02	21,567	1,294.02					21,567	1,294.02		
Sipe Springs, Texas.....	13,286	797.16	13,286	797.16					13,286	797.16		
Ranger, Texas.....	179,580	10,774.80	179,580	10,774.80					179,580	10,774.80		
Ibez, Texas.....	36,697	2,201.82	36,697	2,201.82					36,697	2,201.82		
Joshua, Texas.....	386,242	23,174.52	386,242	23,174.52					386,242	23,174.52		
X Ray, Texas.....	10	.60	10	.60					10	.60		
Breckenridge, Texas.....	104,815	6,288.90	104,815	6,288.90					104,815	6,288.90		
Caddo, Texas.....	28,830	1,729.80	28,830	1,729.80					28,830	1,729.80		
Eastland, Texas.....	43,463	2,607.78	43,463	2,607.78					43,463	2,607.78		
Total.....	1,517,249	\$96,107.05	1,093,356	\$65,601.36	189,617	\$12,705.18	234,276	\$17,800.51	1,125,983	\$68,301.30	391,266	\$27,805.75

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Statement of Gas Sales to Community Natural Gas Company

Twelve Months Ended December 31st, 1933

Location	Total			Domestic			Industrial	
	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount
A--System:								
Chillicothe.....	27,849	\$7,203.74	12,256	\$4,902.40	15,593	\$2,301.34		
Davidson.....	6,474	2,589.60	6,474	2,589.60				
Electra.....	15,750	6,300.00	15,750	6,300.00				
Frederick.....	75,756	26,137.10	55,250	22,100.00	20,506	4,037.10		
Harold.....	3,753	1,501.20	3,753	1,501.20				
Hollis.....	49,885	17,791.09	40,389	16,155.60	9,496	1,635.49		
Manitou.....	2,977	1,115.87	2,444	977.60	533	138.27		
Mountain Park.....	4,880	1,735.49	3,397	1,358.80	1,483	376.69		
Oklaunion.....	4,498	1,551.37	3,046	1,218.40	1,452	332.97		
Snyder.....	13,610	5,444.00	13,610	5,444.00				
Tolbert.....	607	242.80	607	242.80				
Tipton.....	24,060	7,549.01	13,532	5,412.80	10,528	2,136.21		
Vernon.....	96,414	32,790.01	69,434	27,773.60	26,980	5,016.41		
Total.....	326,513	\$111,951.28	239,942	\$95,976.80	86,571	\$15,974.48		
Right-of-Way.....	1,724,248	162,006.55	11,193	3,888.34	1,713,055	158,118.21		
Total.....	2,050,761	\$273,957.83	251,135	\$99,865.14	1,799,626	\$174,092.69		

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Defendant's Exhibit No. 46—Continued
Statement of Gas Sales to Community Natural Gas Company
Twelve Months Ended December 31st, 1933

Location	Total		Domestic		Industrial	
	M Cu. Ft.	Amount	M. Cu. Ft.	Amount	M Cu. Ft.	Amount
B—System:						
Chico.....	3,096	\$1,238.40	3,096	\$1,238.40		
Henrietta.....	31,783	12,292.01	29,313	11,725.20	2,470	\$566.81
Newark.....	786	314.40	786	314.40		
Rhorne.....	4,314	1,725.60	4,314	1,725.60		
Saginaw.....	1,771	708.40	1,771	708.40		
Total.....	41,750	\$16,278.81	39,280	\$15,712.00	2,470	\$566.81
Right-of-Way.....	4,843	1,830.70	4,843	1,830.70		
Total.....	46,593	\$18,109.51	44,123	\$17,542.70	2,470	\$566.81
C—System:						
Irving.....	10,358	\$4,063.07	9,765	\$3,906.00	593	\$157.07
Right-of-Way.....	11,454	4,010.19	7,308	2,828.47	4,146	1,181.72
Total.....	21,812	\$8,073.26	17,073	\$6,734.47	4,739	\$1,338.79
[fol. 9744] E—System:						
Bagwell.....	476	\$190.40	476	\$190.40		
Bells.....	2,814	1,089.49	2,477	990.80	337	\$98.69
Blossom.....	3,036	796.76	1,357	542.80	1,679	253.96

Bonham.....	71,821	27,098.97	62,864	25,115.60	8,957	1,953.37
Brookston.....	1,276	510.40	1,276	510.40		
Clarksville.....	32,317	10,639.32	21,462	8,584.80	10,855	2,054.52
Collinsville.....	3,714	1,438.02	3,305	1,322.00	409	116.02
Deport.....	3,667	1,466.80	3,667	1,466.80		
Detroit.....	1,650	660.00	1,650	660.00		
Dodd City.....	2,708	1,083.20	2,708	1,083.20		
Ector.....	2,513	870.04	1,664	665.60	849	204.44
Fulbright.....	452	180.80	452	180.80		
Honey Grove.....	60,314	15,936.44	28,857	11,542.80	31,457	4,393.64
Howe.....	7,914	2,799.55	5,512	2,204.80	2,402	594.75
Leonard.....	11,911	4,764.40	11,911	4,764.40		
Melissa.....	2,609	971.36	2,063	825.20	546	146.16
Petty.....	2,931	792.75	1,324	529.60	1,607	263.15
Revenna.....	3,724	921.99	1,342	536.80	2,382	385.19
Roxton.....	9,840	3,023.62	5,887	2,354.80	3,953	668.82
Savoy.....	1,786	714.40	1,786	714.40		
Trenton.....	5,324	1,948.66	4,207	1,682.80	1,117	265.86
Van Alstyne.....	14,792	5,589.37	12,451	4,980.40	2,241	698.97
Westminster.....	1,474	500.44	733	293.20	741	207.24
Whitewright.....	13,802	5,508.27	13,664	5,465.60	138	42.67
Windom.....	2,259	903.60	2,259	903.60		
Achille.....	3,682	982.67	1,571	628.40	2,111	354.27
Caddo.....	5,231	2,032.74	4,852	1,940.80	379	91.94
Durant.....	186,787	53,731.02	98,894	39,557.60	87,893	14,173.42
Hugo.....	40,590	15,948.33	37,808	15,123.20	2,782	825.13
Total.....	510,414	\$163,093.81	338,479	\$135,391.60	162,935	27,702.21
Right-of-Way.....	15,900	5,143.97	5,597	2,207.61	10,303	2,936.36
Total.....	517,314	\$168,237.78	344,076	\$137,599.21	173,238	\$30,638.57

Defendant's Exhibit No. 46—Continued

Statement of Gas Sales to Community Natural Gas Company
Twelve Months Ended December 31st, 1933

[fol. 9745]

Location	Total		Domestic		Industrial	
	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount
F-System:						
Allen.....	2,728	\$1,091.20	2,728	\$1,091.20		
Anna.....	3,398	1,359.20	3,398	1,359.20		
Aubrey.....	3,170	1,190.53	2,619	1,047.60	551	142.93
Carrollton.....	8,886	3,462.52	8,189	3,275.60	697	186.92
Celina.....	14,092	5,524.83	13,339	5,335.60	753	189.23
Frisco.....	6,994	2,797.60	6,994	2,797.60		
Grapevine.....	8,302	3,170.11	7,363	2,945.20	939	224.91
Lewisville.....	5,958	2,383.20	5,958	2,383.20		
Pilot Point.....	10,753	4,078.64	9,197	3,678.80	1,556	399.84
Prosper.....	3,289	1,315.60	3,289	1,315.60		
Sanger.....	20,418	7,130.55	13,302	5,320.80	7,116	1,809.75
Tioga.....	3,669	1,467.60	3,669	1,467.60		
Valley View.....	8,517	2,705.90	5,563	2,225.20	2,954	480.70
Total.....	100,174	\$37,677.48	85,608	\$34,243.20	14,566	\$3,434.28
Right-of-Way.....	8,440	3,342.98	8,440	3,342.98		
Total.....	108,614	\$41,020.46	94,048	\$37,586.18	14,566	\$3,434.28

G-System:

Davis.....	15,198	\$5,733.70	12,804	\$5,121.60	2,394	\$612.10
Elmore City.....	9,193	2,682.15	4,787	1,914.80	4,406	767.35
Loco.....	2,796	1,118.40	2,796	1,118.40		
Marietta.....	26,635	9,146.16	19,526	7,810.40	7,109	1,335.76
Mayaville.....	5,284	2,113.60	5,284	2,113.60		
Paoli.....	2,615	979.66	2,074	829.60	541	150.06
Pauls Valley.....	58,026	20,920.75	45,833	18,333.20	12,193	2,587.55
Purcell.....	79,811	18,287.34	26,169	10,467.60	53,642	7,819.74
Sulphur.....	83,794	22,800.28	38,194	15,277.60	45,600	7,522.68
Wayne.....	3,964	1,494.17	3,317	1,326.80	647	167.37
Wynnewood.....	48,034	11,819.08	19,926	7,970.40	28,108	3,848.68
Total.....	335,350	\$97,095.29	180,710	\$72,284.00	154,640	\$24,811.29
Right-of-Way.....	47,166	7,405.04	7,036	2,118.62	40,130	5,286.42
Total.....	382,516	\$104,500.33	187,746	\$74,402.62	194,770	\$30,097.71

Defendant's Exhibit No. 46—Continued

Statement of Gas Sales to Community Natural Gas Company
Twelve Months Ended December 31st, 1933

[fol. 9746]

Location	Total		Domestic		Industrial	
	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount
G-3—System:						
Lindsey.....	453	\$181.20	453	\$181.20		
Mendenhall.....	8,307	2,198.72	3,462	1,384.80	4,845	813.92
Myra.....	3,367	1,125.97	2,078	831.20	1,289	294.77
Saint Jo.....	6,825	2,730.00	6,825	2,730.00		
Total.....	18,952	\$6,235.89	12,818	\$5,127.20	6,134	1,108.69
H—System:						
Ryan.....	32,120	\$7,963.31	10,745	\$4,298.00	21,375	\$3,665.31
Hastings.....	3,974	1,447.03	3,057	1,222.80	917	224.23
Walters.....	36,177	13,520.28	29,731	11,892.40	6,446	1,627.88
Waurika.....	35,730	12,247.87	25,355	10,142.00	10,375	2,105.87
Total.....	108,001	\$35,178.49	68,888	\$27,555.20	39,113	\$7,623.29
Right-of-Way.....	6,551	2,342.89	6,551	2,342.89		
Total.....	114,552	\$37,521.38	75,439	\$29,898.09	39,113	\$7,623.29

Town Plants	M Cu. Ft.	Amount	M Cu. Ft.	Amount
Abbott.....	3,903	\$1,435.77	3,107	\$1,242.80
Abilene.....	439,292	161,923.31	329,896	140,997.21
Abilene N. P.....	4,290	1,716.00	4,290	1,716.00
Albany.....	32,665	12,792.92	31,158	12,463.60
Alvarado.....	31,224	8,350.46	14,076	5,630.40
Athens.....	138,434	30,742.63	44,573	17,829.20
Baird.....	27,369	10,240.16	24,236	9,694.40
Ballinger.....	53,238	18,312.13	38,843	15,537.20
Bardwell.....	3,081	1,232.40	3,081	1,232.40
Berry.....	1,567	626.80	1,567	626.80
Bartlett.....	12,705	5,078.20	12,663	5,065.20
Bellmeade.....	3,614	1,360.71	3,036	1,214.40
Belton.....	64,401	17,287.97	30,051	12,020.40
Birdville.....	9,186	3,674.40	9,186	3,674.40
Blooming Grove.....	6,407	2,562.80	6,407	2,562.80
Bremond.....	3,473	1,389.20	3,473	1,389.20
Britton.....	1,424	516.62	968	387.20
Bryan.....	89,947	32,372.46	70,358	28,143.20
Buckholts.....	1,341	536.40	1,341	536.40
Buffalo Gap.....	574	229.60	574	229.60
Burleson.....	6,402	2,560.80	6,402	2,560.80
Callahan.....	5,189	2,075.60	5,189	2,075.60

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Defendant's Exhibit No. 46—Continued
 Statement of Gas Sales to Community Natural Gas Company—(Con.)
 Twelve Months Ended December 31st, 1933
 Western, Southern, and Eastern Towns

	Total			Domestic		Industrial	
	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount	
Town Plants							
Calvert.....	47,264	10,363.21	14,060	5,624.00	33,204	4,739.21	
Campbell.....	3,772	1,102.38	2,061	824.40	1,711	277.98	
Cameron.....	36,013	13,447.32	30,312	12,124.80	5,701	1,322.52	
Cedar Hill.....	1,930	772.00	1,930	772.00			
Celeste.....	7,017	2,806.80	7,017	2,806.80			
Chilton.....	7,047	1,760.16	2,652	1,060.80	4,395	699.36	
Clifton.....	11,886	4,604.02	10,458	4,183.20	1,428	420.82	
Clyde.....	9,777	3,910.80	9,777	3,910.80			
College Station.....	26,695	9,827.94	20,913	8,365.20	5,782	1,462.74	
Colorado.....	50,856	18,771.05	41,955	16,782.00	8,901	1,989.05	
Commerces.....	129,969	34,368.59	58,996	23,598.40	70,973	10,770.19	
Coolidge.....	12,611	4,431.21	9,285	3,714.00	3,326	717.21	
Cooper.....	21,037	7,414.80	21,037	8,414.80			
Covington.....	6,983	1,704.98	2,409	963.60	4,574	741.38	
Crandall.....	2,606	1,042.40	2,606	1,042.40			
Cumby.....	4,320	1,696.60	4,049	1,619.60			
Dawson.....	6,732	2,692.80	6,732	2,692.80	271	77.00	
Duncanville.....	2,498	999.20	2,498	999.20			
Eastland.....	66,571	25,771.35	60,872	24,348.80	5,699	1,422.55	
Eddy.....	3,072	1,228.80	3,072	1,228.80			
Elm Mott.....	1,345	538.00	1,345	538.00			
[fol. 9748] Embouse.....	3,335	\$1,245.03	2,745	\$1,098.00	590	\$147.03	

Enloe	1,110	444.00	1,110	444.00	.....	385.37
Everman	5,442	1,613.37	3,070	1,228.00	.....	2,372
Fairlie	868	347.20	868	347.20	.....	.....
Farmersville	46,172	14,153.48	29,034	11,613.00	.....	17,138
Fate	2,201	880.40	2,201	880.40	.....	.....
Ferris	12,596	4,835.29	11,388	4,555.20	.....	.....
Forney	14,468	5,559.91	12,843	5,137.20	.....	1,208
Forreston	2,485	994.00	2,485	994.00	.....	1,625
Froet	7,783	2,985.84	6,796	2,718.40	.....	.....
Garland	27,897	9,703.12	19,707	7,882.80	.....	987
Gatesville	95,543	21,875.69	32,432	12,972.80	.....	8,190
Georgetown	61,398	17,436.67	32,674	13,069.60	.....	63,111
Glen Rose	6,931	2,647.35	6,066	2,426.40	.....	28,724
Godley	6,754	2,124.73	3,068	1,227.20	.....	865
Gordon	3,368	1,347.20	3,368	1,347.20	.....	3,686
Granbury	7,620	3,048.00	7,620	3,048.00	.....	.....
Grandview	15,886	5,285.17	11,115	4,446.00	.....	.....
Granger	10,573	4,158.86	9,794	3,917.60	.....	4,771
Greenville	187,207	69,584.97	159,153	63,661.20	.....	779
Groesbeck	49,991	9,537.66	10,456	4,182.40	.....	28,054
Hamilton	29,265	9,688.21	19,583	7,833.20	.....	39,535
Handley	25,094	10,037.60	25,094	10,037.60	.....	9,682
Hearne	20,076	7,583.85	17,061	6,824.40	.....	.....
Holland	5,745	2,298.00	5,745	2,298.00	.....	3,015
Hubbard	65,613	14,788.13	21,601	8,640.40	.....	.....
Hutchins	3,043	1,117.26	2,373	949.20	.....	44,012
Hutto	3,468	1,387.20	3,468	1,387.20	.....	670
Iredell	6,520	1,585.23	2,269	907.60	.....	.....
Italy	32,371	8,420.77	13,085	5,234.00	.....	4,251
Itasca	40,525	11,848.00	21,912	8,764.80	.....	19,286
Josephine	3,187	1,230.59	2,823	1,129.20	.....	18,613
					.....	364
					.....	677.63
					.....	3,186.77
					.....	3,083.20
					.....	101.39

Defendant's Exhibit No. 46—Continued
Statement of Gas Sales to Community Natural Gas Company—(Con.)
Twelve Months Ended December 31st, 1933
Western, Southern, and Eastern Towns

	Total		Domestic		Industrial	
	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount
Town Plants						
Joshua.....	4,587	1,834.80	4,587	1,834.80		
Kaufman.....	26,653	9,552.23	19,478	7,791.20	7,175	1,761.03
Keene.....	10,120	3,452.13	7,152	2,860.80	2,968	591.33
Kemp.....	6,167	2,466.80	6,167	2,466.80		
Kerens.....	17,627	5,916.61	12,949	5,179.60	4,678	737.01
Ladonia.....	8,411	3,364.40	8,411	3,364.40		
Lancaster.....	11,913	4,765.20	11,913	4,765.20		
Lawn.....	1,965	786.00	1,965	786.00		
Lewis Poultry Colony.....	1,084	433.60	1,084	433.60		
[fol. 9749] Lillian.....	2,973	\$764.46	1,225	\$490.00	1,748	\$274.46
Little River.....	900	328.45	655	262.00	245	66.45
Lorraine.....	10,289	3,167.15	6,161	2,464.40	4,108	702.75
Lorena.....	2,990	1,196.00	2,990	1,196.00		
Lotti.....	4,934	1,794.54	3,892	1,556.80		
Mabank.....	5,470	2,188.00	5,470	2,188.00	1,042	237.74
Malakoff.....	23,861	4,343.71	5,198	2,079.20	18,663	2,264.51
Malone.....	3,303	1,321.20	3,303	1,321.20		
Mansfield.....	10,657	3,672.63	7,842	3,136.80	2,815	535.83
Marlin.....	157,748	36,320.23	48,213	19,285.20	109,535	17,035.03
Mart.....	51,799	15,944.57	32,040	12,816.00	19,759	3,128.57
Maypearl.....	10,796	2,815.31	4,480	1,792.00	6,316	1,023.31
McGregor.....	13,623	5,267.51	12,031	4,812.40	1,592	455.11

Meridian.....	6,397	2,558.80	6,397	2,558.80	.....	590.42
Merkel.....	18,815	7,228.42	16,595	6,638.00	2,220	
Mesquite.....	10,498	4,199.20	10,498	4,199.20	74,617	10,637.19
Mexia.....	138,541	36,206.79	63,924	25,569.60	3,368	579.30
Midlothian.....	14,946	5,210.50	11,578	4,631.20	579	151.45
Millford.....	6,000	2,319.85	5,421	2,168.40	44	13.64
Moody.....	7,719	3,083.64	7,675	3,070.00	14	2.03
Moran.....	11,312	4,521.23	11,298	4,519.20	.....	338.75
Morgan.....	2,152	860.80	2,152	860.80	1,385	
Nevada.....	5,803	2,105.95	4,418	1,767.20	.....	583.51
Oak Lawn.....	16,328	6,531.20	16,328	6,531.20	3,739	
Ogleby.....	6,570	1,715.91	2,831	1,132.40	.....
Osceola.....	832	332.80	832	332.80	.....
Ovalo.....	1,016	406.40	1,016	406.40	.....
Palmer.....	6,532	2,612.80	6,532	2,612.80	.....
Pecan Gap.....	2,962	1,184.80	2,962	1,184.80	.....
Penelope.....	2,819	1,127.60	2,819	1,127.60	.....
Peniel.....	1,610	644.00	1,610	644.00	.....
Plano.....	16,342	6,455.49	15,745	6,298.00	597	157.49
Powell.....	915	366.00	915	366.00	.....
Putnam.....	8,730	2,898.11	6,401	2,560.40	2,329	337.71
Regan.....	5,239	1,267.76	1,820	728.00	3,419	539.76
Reisel.....	2,106	842.40	2,106	842.40	.....
Richardson.....	7,753	3,020.39	7,214	2,885.60	539	134.79
Richland.....	2,984	1,193.60	2,984	1,193.60	.....
Rockdale.....	13,786	5,409.53	13,081	5,232.40	705	177.13
Rockwall.....	13,415	5,349.42	13,231	5,292.40	184	57.02
Rogers.....	12,796	3,956.02	7,875	3,150.00	4,921	806.02
Loosee.....	10,252	4,100.90	10,252	4,100.90	.....
Rosebud.....	26,996	6,602.89	10,518	4,207.20	16,478	2,395.69
Round Rock.....	8,941	3,047.59	6,028	2,411.20	2,913	636.39

Defendant's Exhibit No. 46—Continued
Statement of Gas Sales to Community Natural Gas Company—Continued
Twelve Months Ended December 31st, 1933
Western, Southern, and Eastern Towns

[fol. 9750]

	Total		Domestic		Industrial	
	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount
Rowlett.....	1,805	\$ 722.00	1,805	\$ 722.00		
Royce City.....	15,961	6,315.02	15,400	6,160.00	561	\$ 155.02
Scurry.....	628	251.20	628	251.20		
Seagoville.....	2,339	935.60	2,339	935.60		
Snyder.....	32,681	12,369.60	28,535	11,414.00	4,146	955.60
Strawn.....	17,335	6,828.77	16,846	6,738.40	489	90.37
Streetman.....	1,327	530.80	1,327	530.80		
Sulphur Springs.....	114,106	29,981.30	54,109	21,043.60	59,997	8,337.70
Sweetwater.....	116,542	44,069.02	102,053	40,821.20	14,489	3,247.82
Talpa.....	2,746	1,098.40	2,746	1,098.40		
Taylor.....	70,478	25,985.46	58,155	23,262.00	12,323	2,723.46
Teague.....	39,362	11,783.03	22,806	9,122.40	16,556	2,660.63
Tahaucana.....	2,216	810.81	1,685	674.00	531	136.81
Temple.....	179,840	65,182.12	145,950	58,390.00	33,890	6,802.12
Terrell.....	170,729	41,451.44	65,020	26,008.00	105,709	15,443.44
Trent.....	2,614	1,045.60	2,614	1,045.60		
Troy.....	3,739	1,495.60	3,739	1,495.60		
Tuscola.....	2,484	993.60	2,484	993.60		
Urbandale.....	4,606	1,842.40	4,606	1,842.40		
Valera.....	1,747	698.80	1,747	698.80		
Valley Mills.....	5,103	2,041.20	5,103	2,041.20		

Venus.....	5,052	2,020.80	5,052	2,020.80	6,226	976.28
Walnut Springs.....	10,937	2,860.68	4,711	1,884.40	13,720	2,082.49
West.....	35,141	10,650.89	21,421	8,568.40	630	173.00
Whitney.....	7,373	2,870.20	6,743	2,697.20		
Wilmer.....	3,315	1,326.00	3,315	1,326.00		
Winters.....	32,590	11,415.96	25,201	10,080.40	7,389	1,335.56
Wolfe City.....	9,390	3,580.06	8,178	3,271.20	1,212	308.86
Wortham.....	10,381	4,152.40	10,381	4,152.40		
Wylie.....	5,444	2,177.60	5,444	2,177.60		
Cisco.....	78,869	29,614.95	69,470	27,230.31	9,399	2,384.64
Buckners.....	37,826	7,919.07	8,574	3,429.60	29,252	4,489.47

Total..... 4,007,925 \$1,291,141.13 2,649,968 \$1,068,468.32 1,357,957 \$222,672.81

Right-of-Way:

R-System.....	1,163	465.12	1,163	465.12		
K-System.....	3,750	937.54	1,825	637.41	1,925	300.13
M-System.....	77,452	13,839.18	10,624	4,160.37	66,828	9,678.81
J-System.....	20,242	8,037.96	20,242	8,037.96		
O-System.....	180,986	28,180.76	16,535	6,577.24	164,451	21,603.52
L-System.....	1,380	542.16	1,380	542.16		
Gordon.....	5,892	1,893.86	5,892	1,893.86		
Abilene.....	94,182	13,905.42	5,653	2,245.29	38,529	11,660.13
Waco.....	530,105	55,864.44	11,498	4,570.56	518,607	51,293.88
Ranger.....	12,301	4,132.53	12,301	4,192.53		

Total R. of W..... 927,453 \$127,858.97 87,113 \$33,322.50 840,340 \$94,536.47

Grand Total..... 4,935,378 \$1,419,000.10 2,737,081 \$1,101,790.82 2,198,297 \$317,209.28

Defendant's Exhibit No. 46—Continued
Statement of Gas Sales to Municipal Gas Company
Twelve Months Ended December 31st, 1933

[fol. 9751]

	Total			Domestic			Industrial		
A—System:	M Cu. Ft.	Amount		M Cu. Ft.	Amount		M Cu. Ft.	Amount	
Iowa Park.....	13,229	\$ 4,739.02		10,313	\$ 4,125.20		2,916	\$ 613.82	
Iowa Park Road.....	11,312	4,508.08		11,166	4,466.40		146	41.68	
Wichita Falls.....	672,149	255,881.13		603,260	241,304.00		68,889	14,577.13	
Total.....	696,690	\$265,128.23		624,739	\$249,895.60		71,951	\$ 15,232.63	
B—System:									
Bellevue.....	9,634	\$ 3,439.06		7,912	\$ 3,164.80		1,722	\$ 274.26	
Bowie.....	62,654	21,148.67		47,132	18,852.80		15,522	2,295.87	
Sunset.....	3,112	1,244.80		3,112	1,244.80		.....	.....
Alvord.....	11,618	4,302.52		10,143	4,057.20		1,475	245.32	
Decatur.....	60,182	17,463.67		33,736	13,494.40		26,446	3,969.27	
Bridgeport.....	14,732	5,892.80		14,732	5,892.80		.....	.....
Total.....	161,932	\$ 53,491.52		116,767	\$ 46,706.80		45,165	\$ 6,784.72	
E—System:									
Denison.....	254,998	\$ 84,848.35		178,461	\$ 71,384.40		76,537	\$ 13,463.95	
Sherman.....	481,959	128,475.68		219,359	87,743.60		262,600	40,732.08	
Whitesboro.....	27,679	8,805.13		16,457	6,582.80		11,222	2,222.33	
Total.....	764,636	\$222,129.16		414,277	\$165,710.80		350,359	\$ 56,418.36	

F—System:

Denton.....	401,783	\$108,707.89	193,732	\$ 77,492.80	208,051	\$ 31,215.09
McKinney.....	162,520	52,623.21	108,301	43,320.40	54,219	9,302.81
Total.....	564,303	\$161,331.10	302,033	\$120,813.20	262,270	\$ 40,517.90

H—System:

Byers.....	12,181	\$ 4,131.82	8,656	\$ 3,462.40	3,525	\$ 669.42
Petrolis.....	11,604	4,589.61	11,258	4,502.20	346	87.41
Total.....	23,785	\$ 8,721.43	19,914	\$ 7,964.60	3,871	\$ 756.83

Southern Towns:

Cleburne.....	230,474	\$ 66,399.03	124,712	\$ 49,885.80	105,762	\$ 16,513.23
Cordeana.....	273,826	89,748.29	183,723	73,489.20	90,103	16,259.09
Ennis.....	208,559	49,943.67	78,034	31,213.60	130,525	18,730.07
Hillsboro.....	147,553	42,983.38	76,433	30,573.20	71,120	12,410.18
Warabachie.....	130,493	31,077.43	44,538	17,815.20	85,955	13,262.23
Total.....	990,905	\$280,151.80	507,440	\$202,977.00	483,465	\$ 77,174.80

Defendant's Exhibit No. 46—Continued
Detailed Calculations Showing Allocation of Sales in
Area "C" to "D" Operations and "E" Operations

	Total		Domestic		Industrial	
	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount
B—System—Distribution:						
Municipal Gas Company.....	161,932	\$ 53,491.52	116,767	\$ 46,706.80	45,165	\$ 6,784.72
Community Natural Gas Company.	46,593	18,109.51	44,123	17,542.70	2,470	566.81
Total Sales.....	208,525	\$ 71,601.03	160,890	\$ 64,249.50	47,635	\$ 7,351.53
Division as shown in Schmidt-Connor report,—Page 44:						
"D" Operations.....			14.70%		17.30%	
"E" Operations.....			85.30%		82.70%	
Total.....			100.00%		100.00%	
Allocation:						
Municipal Gas Company:						
"D" Operations.....	24,992	\$ 8,047.88	17,165	\$ 6,866.00	7,827	\$ 1,181.88
"E" Operations.....	136,940	45,443.64	99,602	39,840.80	37,338	5,602.84
Total.....	161,932	\$ 53,491.52	116,767	\$ 46,706.80	45,165	\$ 6,784.72
Community Natural Gas Co.:						
"D" Operations.....	6,913	\$ 2,692.18	6,486	\$ 2,594.40	427	\$ 97.78
"E" Operations.....	39,680	15,417.33	37,637	14,948.30	2,043	469.03
Total.....	46,593	\$ 18,109.51	44,123	\$ 17,542.70	2,470	\$ 566.81

C-System—Distribution:

Community Natural Gas Company.	21,812	\$ 8,073.26	17,073	\$ 6,734.47	4,739	\$ 1,338.79
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Division shown in Schmidt-

Connor report—Page 48:

"D" Operations.....	76.70%	85.30%
"E" Operations.....	23.30%	14.70%
Total.....	100.00%	100.00%

Allocation:

Community Natural Gas Company:

"D" Operations.....	17,137	\$ 6,307.04	13,095	\$ 5,165.15	4,042	\$ 1,141.89
"E" Operations.....	4,675	1,766.22	3,978	1,569.32	697	196.90
Total.....	21,812	\$ 8,073.26	17,073	\$ 6,734.47	4,739	\$ 1,338.79

[fol. 9753]

E-System—Distribution:

Community Natural Gas Company.	517,314	\$168,237.78	344,076	\$137,599.21	173,238	\$ 30,638.57
Less—Oklahoma Sales.....	236,290	72,694.76	143,125	57,250.00	93,165	15,444.76
Balance—Texas Sales.....	281,024	\$ 95,543.02	200,951	\$ 80,349.21	80,073	\$ 15,193.81
Texas Cities Gas Company.....	253,761	84,613.79	173,866	69,548.16	79,895	15,067.63
Municipal Gas Company.....	764,636	222,129.16	414,277	165,710.80	350,369	56,418.36
Total.....	1,299,421	\$402,285.97	789,094	\$315,606.17	510,327	\$ 86,679.80

Defendant's Exhibit No. 46—Continued

Detailed Calculations Showing Allocation of Sales in Area "C" to "D" Operations and "E" Operations

Division shown in Schmidt- Connor Report—Page 44:	Total		Domestic		Industrial	
	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount
"D" Operations.....			59.68%		66.75%	
"E" Operations.....			40.32%		33.25%	
Total.....			100.00%		100.00%	
Allocation:						
Community Natural Gas Co.:						
"D" Operations.....	173,396	\$ 58,076.44	119,927	\$ 47,970.80	53,469	\$ 10,105.64
"E" Operations.....	107,628	37,466.58	81,024	32,378.41	26,604	5,088.17
Total.....	281,024	\$ 95,543.02	200,951	\$ 80,349.21	80,073	\$ 15,193.81
Texas Cities Gas Company:						
"D" Operations.....	157,115	\$ 51,535.38	103,763	\$ 41,505.20	53,352	\$ 10,030.18
"E" Operations.....	96,646	33,078.41	70,103	28,040.96	26,543	5,037.45
Total.....	253,761	\$ 84,613.79	173,866	\$ 69,546.16	79,895	\$ 15,067.63
Municipal Gas Company:						
"D" Operations.....	481,199	\$136,563.64	247,241	\$ 98,896.40	233,958	\$ 37,667.24
"E" Operations.....	283,437	85,565.52	167,036	66,814.40	116,401	18,751.12
Total.....	764,636	\$222,129.16	414,277	\$165,710.80	350,359	\$ 56,418.36

[fol. 9754] F—System—Distribution:

Community Natural Gas Company.	108,614	\$ 41,020.46	94,048	\$ 37,586.18	14,566	\$ 3,434.28
Municipal Gas Company.....	564,303	161,331.10	302,033	120,813.20	262,270	40,517.90
Total.....	672,917	\$202,351.56	396,081	\$158,399.38	276,836	\$ 43,952.18

Division shown in Schmidt-
Connor Report—Page 44:

"D" Operations.....	76.70%	83.70%
"E" Operations.....	23.30%	16.30%
Total.....	100.00%	100.00%

Allocation:

Community Natural Gas Co.:						
"D" Operations.....	84,327	\$ 31,690.25	72,135	\$ 28,820.98	12,192	\$ 2,869.27
"E" Operations.....	24,287	9,330.21	21,913	8,765.20	2,374	565.01
Total.....	108,614	\$ 41,020.46	94,048	\$ 37,586.18	14,566	\$ 3,434.28

Municipal Gas Company:

"D" Operations.....	450,968	\$126,544.03	231,659	\$ 92,663.60	219,309	\$ 33,880.43
"E" Operations.....	113,335	34,787.07	70,374	28,149.60	42,961	6,637.47
Total.....	564,303	\$161,331.10	302,033	\$120,813.20	262,270	\$ 40,517.90

Defendant's Exhibit No. 46—Continued

Detailed Calculations Showing Allocation of Sales in Area "C" to "D" Operations and "E" Operations

	Total		Domestic		Industrial	
	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount
Line G-3 System Including Gainesville:						
Community Natural Gas Company.	18,952	\$ 6,235.89	12,818	\$ 5,127.20	6,134	\$ 1,108.69
Gainesville Gas & Elec. Co.....	224,168	69,081.68	138,820	55,528.00	85,348	13,553.68
Total.....	243,120	\$ 75,317.57	151,638	\$ 60,655.20	91,482	\$ 14,662.37
Division Shown in Schmidt-Connor Report--Page 51:						
"D" Operations.....			77.15%		82.80%	
"E" Operations.....			22.85%		17.20%	
Total.....			100.00%		100.00%	
Allocation:						
Community Natural Gas Co.:						
"D" Operations.....	14,968	\$ 4,873.61	9,889	\$ 3,955.60	5,079	\$ 918.01
"E" Operations.....	3,984	1,362.28	2,929	1,171.60	1,055	190.68
Total.....	18,952	\$ 6,235.89	12,818	\$ 5,127.20	6,134	\$ 1,108.69
Gainesville Gas & Elec. Co.:						
"D" Operations.....	177,768	\$ 54,062.50	107,100	\$ 42,840.00	70,668	\$ 11,222.50
"E" Operations.....	46,400	15,019.18	31,790	12,688.00	14,680	2,331.18
Total.....	224,168	\$ 69,081.68	138,820	\$ 55,528.00	85,348	\$ 13,553.68

Defendant's Exhibit No. 46—Continued

fol. 9755] Gas Purchased, Operating Expenses

Cancelled and Surrendered Leases, and Taxes

fol. 9756] Gas Purchased

Twelve Months Ended December 31st, 1933

Total Gas Purchased..... \$1,086,587.44

Gas Purchased — Petrolia

Field \$1,161.72

Gas Purchased—West

Texas Field 969,079.16

Total \$970,240.88

Less:

West Texas gas sold in

Oklahoma through "E"

System 8,212.20

962,028.68

Balance—Panhandle and Oklahoma

Fields \$124,558.76

Applicable to "D" Operations..... \$962,028.68

Applicable to "E" Operations..... 124,558.76

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Defendant's Exhibit No. 46—Continued

Statement of Operating Expenses
Twelve Months Ended December 31st, 1933

	Total	Applicable to			Applicable to "D" Operations		Applicable to "E" Operations	
		Area "A"	Area "B"	Area "C"	% of Area "C"	Amount	% of Area "C"	Amount
Production System Expenses:								
Well Rentals & Royalties.....	\$45,441.54	\$30,590.81	\$14,850.73			\$30,590.81		\$14,850.73
Other Prod. System Expenses:								
Petrolia District.....	19,576.05	19,576.05				19,576.05		
West Texas District.....	26,789.83	26,789.83				26,789.83		
Shamrock District.....	2,732.20		2,732.20					2,732.20
Oklahoma District.....	11,015.24		11,015.24					11,015.24
Total.....	\$105,554.86	\$76,956.69	\$28,598.17			\$76,956.69		\$28,598.17
Gathering System Expense:								
Petrolia District.....	\$6,291.78	\$6,291.78				\$6,291.78		
Oklahoma District.....	35,062.89		35,062.89					35,062.89
Gordon District.....	32,317.95	32,317.95				32,317.95		
Gainesville District.....	104.64	104.64				104.64		
Ranger District.....	29,922.90	29,922.90				29,922.90		
Shamrock District.....	26,195.16		26,195.16					26,195.16
Coleman District.....	1,390.95	1,390.95				1,390.95		
Waco District.....	40.02	40.02				40.02		
Total.....	\$131,326.29	\$70,068.24	\$61,258.05			\$70,068.24		\$61,258.05
Transmission System Expense:								
Petrolia District.....	\$22,585.04		\$18,202.85	\$4,292.19	22.17	\$951.58	77.83	\$18,202.85
Ft. Worth District.....	38,496.63	\$2,073.54	21,919.68	14,503.41	30.45	2,073.54 4,416.29	69.55	21,919.68 10,087.12
Dallas District.....	49,790.37	33,408.86		16,381.51	81.69	33,408.86 13,382.05	18.31	2,999.46
Oklahoma District.....	47,189.29		47,189.29					47,189.29
Gordon District.....	26,255.37	26,255.37				26,255.37		
Gainesville District.....	38,701.53		7,244.99	31,456.54	74.01	23,280.99	25.99	7,244.99 8,175.55
Joshua District.....	45,716.64	45,716.64				45,716.64		
Richland District.....	23,726.33	23,726.33				23,726.33		
Ranger District.....	60,502.39	60,502.39				60,502.39		
Vernon District.....	22,721.04		22,721.04					22,721.04
Shamrock District.....	9,529.27		9,529.27					9,529.27
Abilene District.....	10,746.18	10,746.18				10,746.18		
Coleman District.....	4,196.49	4,196.49				4,196.49		
Waco District.....	31,363.99	31,363.99				31,363.99		
Total.....	\$431,520.56	\$237,989.79	\$126,897.12	\$66,633.65		\$280,020.70		\$151,499.86
Compressor Station Expense:								
Petrolia.....	\$70,585.91			\$70,585.91	32.48	\$22,926.30	67.52	\$47,659.61
Gas City.....	17,851.75		\$17,851.75					17,851.75
Sipe Springs.....	5,817.65	\$5,817.65				5,817.65		
Fox.....	13,297.22		13,297.22					13,297.22
Loco.....	3,587.75		3,587.75					3,587.75
Gainesville.....	7,081.74			7,081.74	64.41	4,561.34	35.59	2,520.40
Brad.....	1,047.64	1,047.64				1,047.64		
Brasos.....	2,392.87	2,392.87				2,392.87		
Ranger.....	57,580.90	57,580.90				57,580.90		
Ibex.....	13,995.16	13,995.16				13,995.16		
Joshua.....	61,817.06	61,817.06				61,817.06		
X-Ray.....	740.94	740.94				740.94		
Desdemona.....	7,832.15	7,832.15				7,832.15		
Breckenridge.....	27,358.44	27,358.44				27,358.44		
Caddo.....	13,309.85	13,309.85				13,309.85		
Eastland.....	13,603.58	13,603.58				13,603.58		
Cheaney.....	11,657.07	11,657.07				11,657.07		
Tiffin.....	7,569.06	7,569.06				7,569.06		
Alvord.....	192.17	192.17				192.17		
Pueblo.....	1,114.10	1,114.10				1,114.10		
Total.....	\$338,433.01	\$226,028.64	\$34,736.72	\$77,667.65		\$253,516.28		\$84,916.73
New Business Expense.....	\$99,793.94			\$99,793.94	64.22	\$64,087.66	35.78	\$35,706.28
General Expenses.....	\$859,234.88			\$859,234.88	64.22	\$551,798.64	35.78	\$307,436.24
Summary								
Production System Expense.....	\$105,554.86	\$76,956.69	\$28,598.17			\$76,956.69		\$28,598.17
Gathering System Expense.....	131,326.29	70,068.24	61,258.05			70,068.24		61,258.05
Transmission System Expense.....	431,520.56	237,989.79	126,897.12	\$66,633.65		280,020.70		151,499.86
Compressor Station Expense.....	338,433.01	226,028.64	34,736.72	77,667.65		253,516.28		84,916.73
New Business Expense.....	99,793.94			99,793.94		64,087.66		35,706.28
General Expense.....	859,234.88			859,234.88		551,798.64		307,436.24
Total Gas Expense.....	\$1,965,863.54	\$611,043.36	\$251,490.06	\$1,103,330.12		\$1,296,448.21		\$669,415.33

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Defendant's Exhibit No. 46—Continued

(fol. 9759)

Statement of Cancelled and Surrendered Leases

Twelve Months Ended December 31st, 1933

Applicable to

	Total	"D" Operations	"E" Operations
Texas Counties:			
Eastland and Stephens.....	\$ 16,978.50	\$ 16,978.50	.....
Stephens.....	66,175.27	66,175.27	.....
Shackleford.....	908.88	908.88	.....
Erath.....	27.25†	27.25†	.....
Palo Pinto.....	9,137.01	9,137.01	.....
Gray.....	5,122.75	.....	\$ 5,122.75
Wheeler.....	41,321.74	.....	41,321.74
Commanche.....	2,141.75	2,141.75	.....
Eastland.....	19,685.11	19,685.11	.....
Callahan.....	4,189.56	4,189.56	.....
Walker.....	13,416.55	13,416.55	.....
Total.....	<u>\$179,049.87</u>	<u>\$132,605.38</u>	<u>\$46,444.49</u>
Oklahoma Counties:			
Grady.....	\$ 1,980.24	.....	\$ 1,980.24
Pittsburgh.....	1,996.87	.....	1,996.87
Jefferson.....	247.33	.....	247.33
Beckham.....	1,488.50	.....	1,488.50
Washita.....	763.70	.....	763.70
Stephens.....	3,103.41	.....	3,103.41
Total.....	<u>\$ 9,580.05</u>	<u>.....</u>	<u>\$ 9,580.05</u>
Grand Total.....	<u>\$188,629.92</u>	<u>\$132,605.38</u>	<u>\$56,024.54</u>

Defendant's Exhibit No. 46—Continued

Statement of Taxes—(Other than Federal)

For Year 1933

		Applicable to			Applicable to "D" Operations		Applicable to "E" Operations		
		Total	Area "A"	Area "B"	Area "C"	Percent	Amount	Percent	Amount
Production System Property:									
Gas Producing Properties:									
Wheeler County, Texas		\$7,040.47		\$7,040.47					\$7,040.47
Clay County, Texas		1,977.91	\$1,977.91				\$1,977.91		
Comanche County, Texas		81.41	81.41				81.41		
Eastland County, Texas		4,849.29	4,849.29				4,849.29		
Erath County, Texas		78.45	78.45				78.45		
Palo Pinto County, Texas		61.70	61.70				61.70		
Shackelford County, Texas		52.20	52.20				52.20		
Stephens County, Texas		805.94	805.94				805.94		
Total		\$14,947.37	\$7,906.90	\$7,040.47			\$7,906.90		\$7,040.47
Undeveloped Leaseholds:									
Callahan County, Texas		\$31.36	\$31.36				\$31.36		
Carson County, Texas		706.08		\$706.08					\$706.08
Comanche County, Texas		30.19	30.19				30.19		
Eastland County, Texas		482.56	482.56				482.56		
Gray County, Texas		475.57		475.57					475.57
Grimes County, Texas		5.44	5.44				5.44		
Limestone County, Texas		18.80	18.80				18.80		
Palo Pinto County, Texas		153.36	153.36				153.36		
Runnels County, Texas		14.34	14.34				14.34		
San Jacinto County, Texas		73.44	73.44				73.44		
Shackelford County, Texas		126.36	126.36				126.36		
Stephens County, Texas		306.70	306.70				306.70		
Walker County, Texas		101.61	101.61				101.61		
Wheeler County, Texas		536.61		536.61					536.61
Young County, Texas		8.61	8.61				8.61		
Total		\$3,071.03	\$1,352.77	\$1,718.26			\$1,352.77		\$1,718.26
Total Production System		\$18,018.40	\$9,259.67	\$8,758.73			\$9,259.67		\$8,758.73
[fol. 9761]									
Gathering and Transmission:									
System Property:									
A—System		\$19,416.14		\$19,416.14					\$19,416.14
B—System (Exc'l. of 20")		3,768.25			\$3,768.25	22.17	\$835.42	77.83	2,932.83
B—System (20")		12,632.43		12,632.43					12,632.43
C—System		3,229.36			3,229.36	75.21	2,428.80	24.79	800.56
E—System (Exc. of E-5 & E-16)		12,027.79			12,027.79	69.40	8,347.29	30.60	3,680.50
E—System (E-5 and E-16)		3,640.35		3,640.35					3,640.35
F—System		7,424.26			7,424.26	83.13	6,171.79	16.87	1,252.47
G—System (Exc. of G-3)		22,118.61		21,946.31	172.30	83.13	143.23	16.87	21,946.31
G-3—System		258.19			258.19	83.13	214.63	16.87	43.56
H—System		21,210.79		21,210.79					21,210.79
J—System (Exc. of J-2)		3,487.02	\$3,487.02				3,487.02		
J-2—System		1,099.53			1,099.53	93.32	1,026.02	6.68	73.45
K—System		15,064.90	15,064.90				15,064.90		
L—System		22,313.65	22,313.65				22,313.65		
M—System		9,879.37	9,879.37				9,879.37		
O—System		21,706.53	21,706.53				21,706.53		
R—System		3,582.77	3,582.77				3,582.77		
West Texas Lines—Not Detailed		35,724.21	35,724.21				35,724.21		
Petrolia Field Lines		984.04	984.04				984.04		
Wheeler Co. Lines—Not Detailed		5,242.01		5,242.01					5,242.01
Total		\$224,810.20	\$112,742.49	\$84,088.03	\$27,979.68		\$181,909.73		\$92,900.47
[fol. 9762]									
Compressor Stations:									
Fox		\$1,900.86		\$1,900.86					\$1,900.86
Pernell		38.40		38.40					38.40
Loco		1,179.90		1,179.90					1,179.90
Gas City		2,306.38		2,306.38					2,306.38
Oil City		75.66		75.66					75.66
Petrolia		7,548.48			\$7,548.48	32.48	\$2,451.75	67.52	5,096.73
Sipe Springs		978.34	\$978.34				978.34		
Joshua		4,574.25	4,574.25				4,574.25		
Deedemona		367.20	367.20				367.20		
Eastland		739.67	739.67				739.67		
Cheaney		867.82	867.82				867.82		
Ranger No. 1		1,042.06	1,042.06				1,042.06		
Ranger No. 2		745.14	745.14				745.14		
Ranger No. 3		2,379.27	2,379.27				2,379.27		
Ranger No. 4		1,228.90	1,228.90				1,228.90		
Pueblo		640.80	640.80				640.80		
Brasos		206.28	206.28				206.28		
Brad		604.67	604.67				604.67		
Moran		170.01	170.01				170.01		
Ibex		1,380.99	1,380.99				1,380.99		
X Ray		165.09	165.09				165.09		
Caddo		1,981.04	1,981.04				1,981.04		
Tiffin		198.90	198.90				198.90		
Breckenridge		3,149.93	3,149.93				3,149.93		
Gainesville		338.62			338.62	83.13	281.50	16.87	57.12
Alvord		26.70	26.70				26.70		
Total		\$34,835.36	\$21,447.06	\$5,501.20	\$7,887.10		\$24,180.31		\$10,655.05
Miscellaneous Property:									

[fol. 9761]

[fol. 9762]

[fol. 9763]

Miscellaneous Taxes:

Gross Production Tax—Okla.	\$1,102.08		\$1,102.08				\$1,102.08
Gross Production Tax—Texas	3,911.56			\$3,911.56		\$2,872.91	1,038.65
Foreign Corporation License—Okla.	3,279.57		3,279.57				3,279.57
Oklahoma Sales Tax—Gas	.33		.33				.33
Oklahoma Sales Tax—Electric	.08		.08				.08
Gross Receipts Tax—Texas	19,408.10		19,408.10	78.20	15,177.13	21.80	4,230.97
Franchise Tax—Texas	17,179.05		17,179.05	78.20	13,434.02	21.80	3,745.03
Permit Fee—Texas	.97		.97	78.20	.77	21.80	.20
Federal Electric Tax	.35		.35	78.20	.27	21.80	.08
Automobile License Taxes	4,539.73		4,539.73	64.22	2,915.41	35.78	1,624.32
Federal Capital Stock Tax	20,226.49		20,226.49	64.22	12,989.35	35.78	7,237.14
Federal Tax on Checks	922.22		922.22	64.22	592.25	35.78	329.97
Total	\$70,570.53		\$4,382.06	\$66,188.47		\$47,982.11	\$22,588.42

Summary

Advalorem Taxes:

Production System Property	\$18,018.40	\$9,259.67	\$8,758.73		\$9,259.67		\$8,758.73
Gathering and Transmission System Property	224,810.20	112,742.49	84,088.03	\$27,979.68	131,909.73		92,900.47
Compressor Station Property	34,835.36	21,447.06	5,501.20	7,887.10	24,180.31		10,655.05
Miscellaneous Property	12,242.42			12,242.42	7,861.08		4,381.34
Total	\$289,906.38	\$143,449.22	\$98,347.96	\$48,109.20	\$173,210.79		\$116,695.59
Miscellaneous Taxes	70,570.53		4,382.06	66,188.47	47,982.11		22,588.42
Grand Total	\$360,476.91	\$143,449.22	\$102,730.02	\$114,297.67	\$221,192.90		\$139,284.01

Defendant's Exhibit No. 46—Continued

(fol. 9764-9765)

Property Accounts
Statement of Property Account
Actual Cost as Reflected by Books at December 31st, 1933

Classification of Property	Total	Applicable to			Applicable to "D" Operations		Applicable to "E" Operations	
		Area "A"	Area "B"	Area "C"	% of Area "C"	Amount	% of Area "C"	Amount
Production System Property:								
Undeveloped Leaseholds.....	\$1,032,490.06	\$479,758.70	\$552,731.36	\$.....	.....	\$479,758.70	.....	\$552,731.36
Gas Rights.....	22,436.48	8,934.48	13,502.00	.....	.....	8,934.48	.....	13,502.00
Mineral Rights.....	66,771.61	9,883.00	56,888.61	.....	.....	9,883.00	.....	56,888.61
Clay County Lands in Fee.....	38,010.70	38,010.70	.....	.....	.....	38,010.70	.....	.....
Limestone Co. Lands in Fee.....	3,003.00	3,003.00	.....	.....	.....	3,003.00	.....	.....
Brady Co., Okla. Lands in Fee.....	254.23	.....	254.23	.....	.....	.....	.....	254.23
Stephens Co. Okla. Lands in Fee.....	10,878.27	.....	10,878.27	.....	.....	.....	.....	10,878.27
Gas Producing Properties.....	4,234,436.50	2,417,110.53	1,817,325.97	.....	.....	2,417,110.53	.....	1,817,325.97
Total.....	\$5,408,280.85	\$2,956,700.41	\$2,451,580.44	\$.....	.....	\$2,956,700.41	.....	\$2,451,580.44
Gathering System Property:								
Mineral Wells Field.....	\$920.57	\$920.57	\$.....	\$.....	.....	\$920.57	.....	\$.....
Panhandle Field.....	171,743.71	.....	271,743.71	.....	.....	.....	.....	271,743.71
Petrolia Field.....	238,759.38	238,759.38	.....	.....	.....	238,759.38	.....	.....
Pottsboro Field.....	3,723.12	3,723.12	.....	.....	.....	3,723.12	.....	.....
South Texas Field.....	6,878.66	6,878.66	.....	.....	.....	6,878.66	.....	.....
West Texas Field.....	582,830.12	582,830.12	.....	.....	.....	582,830.12	.....	.....
Oklahoma Field.....	373,326.79	.....	373,326.79	.....	.....	.....	.....	373,326.79
Total.....	\$1,478,182.35	\$833,111.85	\$645,070.50	\$.....	.....	\$833,111.85	.....	\$645,070.50
Transmission System Property:								
A—System.....	\$4,354,536.91	\$.....	\$4,354,536.91	\$.....	.....	\$.....	.....	\$4,354,536.91
B—System.....	3,227,475.35	.....	1,979,476.54	1,247,998.81	22.17	276,681.34	77.83	1,979,476.54
C—System (Exc. of C-2).....	533,872.58	.....	.....	533,872.58	75.21	401,525.57	24.79	971,317.47
C2—System.....	42,959.79	.....	.....	42,959.79	82.63	35,497.67	17.37	132,347.01
E—System.....	1,942,107.63	.....	357,705.22	1,584,402.41	69.40	1,099,575.27	30.60	7,462.12
F—System.....	839,715.21	.....	.....	839,715.21	83.13	698,055.25	16.87	357,705.22
G—System.....	2,213,803.07	.....	2,065,875.20	147,927.87	83.13	122,972.44	16.87	484,827.14
H—System.....	2,141,440.61	.....	2,141,440.61	.....	.....	.....	.....	141,659.96
J—System—(Exc. of J-2).....	549,851.87	549,851.87	.....	.....	.....	549,851.87	.....	2,065,875.20
J2—System.....	184,649.22	.....	.....	184,649.22	93.32	172,314.65	6.68	24,955.43
K—System.....	6,247,217.96	6,247,217.96	.....	.....	.....	6,247,217.96	.....	2,141,440.61
L—System.....	3,649,833.33	3,649,833.33	.....	.....	.....	3,649,833.33	.....	.....
M—System.....	1,830,568.40	1,830,568.40	.....	.....	.....	1,830,568.40	.....	.....
O—System.....	5,770,250.76	5,770,250.76	.....	.....	.....	5,770,250.76	.....	.....
R—System.....	711,080.53	711,080.53	.....	.....	.....	711,080.53	.....	.....
Miscellaneous—West Texas.....	563,662.43	563,662.43	.....	.....	.....	563,662.43	.....	.....
Numbered System.....	1,432,526.26	1,432,526.26	.....	.....	.....	1,432,526.26	.....	.....
Total.....	\$36,235,551.91	\$20,754,991.54	\$10,899,034.48	\$4,581,525.89	.....	\$23,561,613.73	.....	\$12,673,938.18
[fol. 9766]								
Compressor Station Property:								
Petrolia.....	\$826,223.21	\$268,357.30	\$557,865.91	\$.....	.....	\$268,357.30	.....	\$557,865.91
Gas City.....	296,874.31	.....	296,874.31	.....	.....	.....	.....	296,874.31
Sipe Springs.....	175,928.07	175,928.07	.....	.....	.....	175,928.07	.....	.....
Fox.....	428,500.17	.....	428,500.17	.....	.....	.....	.....	428,500.17
Loco.....	173,079.37	.....	173,079.37	.....	.....	.....	.....	173,079.37
Gainesville.....	65,892.18	.....	.....	65,892.18	83.13	57,776.17	16.87	8,116.01
Brad.....	174,184.45	174,184.45	.....	.....	.....	174,184.45	.....	.....
Brasos.....	55,996.80	55,996.80	.....	.....	.....	55,996.80	.....	.....
Ibex.....	257,331.69	257,331.69	.....	.....	.....	257,331.69	.....	.....
Joshua.....	528,293.65	528,293.65	.....	.....	.....	528,293.65	.....	.....
X-Ray.....	78,018.84	78,018.84	.....	.....	.....	78,018.84	.....	.....
Deedemona.....	95,079.12	95,079.12	.....	.....	.....	95,079.12	.....	.....
Breckenridge.....	318,670.57	318,670.57	.....	.....	.....	318,670.57	.....	.....
Caddo.....	293,334.49	293,334.49	.....	.....	.....	293,334.49	.....	.....
Eastland.....	155,008.68	155,008.68	.....	.....	.....	155,008.68	.....	.....
Cheaney.....	132,827.83	132,827.83	.....	.....	.....	132,827.83	.....	.....
Tiffin.....	30,584.55	30,584.55	.....	.....	.....	30,584.55	.....	.....
Alvord.....	16,716.48	16,716.48	.....	.....	.....	16,716.48	.....	.....
Pueblo.....	76,684.49	76,684.49	.....	.....	.....	76,684.49	.....	.....
T. P. U.....	4,317.56	4,317.56	.....	.....	.....	4,317.56	.....	.....
Moran.....	82,093.74	82,093.74	.....	.....	.....	82,093.74	.....	.....
Ranger No. 1.....	154,633.89	154,633.89	.....	.....	.....	154,633.89	.....	.....
Ranger No. 2.....	134,905.23	134,905.23	.....	.....	.....	134,905.23	.....	.....
Ranger No. 3.....	317,287.83	317,287.83	.....	.....	.....	317,287.83	.....	.....
Ranger No. 4.....	167,423.71	167,423.71	.....	.....	.....	167,423.71	.....	.....
Total.....	\$5,039,890.91	\$3,517,678.97	\$1,456,319.76	\$65,892.18	.....	\$3,575,455.14	.....	\$1,464,435.77
Gas Connections:								
Texas.....	\$13,695.62	\$12,638.76	\$1,056.86	\$.....	.....	\$12,638.76	.....	\$1,056.86
Oklahoma.....	1,394.37	.....	1,394.37	.....	.....	.....	.....	1,394.37
Total.....	\$15,089.99	\$12,638.76	\$2,451.23	\$.....	.....	\$12,638.76	.....	\$2,451.23
[fol. 9767]								
General Property:								
Undistributed Intangible Property.....	\$200,000.00	\$200,000.00	\$.....	\$.....	.....	\$200,000.00	.....	\$.....
Automotive Equip.—Net.....	92,301.16	.....	.....	92,301.16	64.22	59,275.80	35.78	33,025.36
Dallas Machine Shop.....	139,785.99	.....	.....	139,785.99	64.22	89,770.56	35.78	50,015.43
Drill Tools—Net.....	25,713.93	.....	.....	25,713.93	64.22	16,513.49	35.78	9,200.44
G. O. Bldg. & Equipment.....	497,218.24	.....	.....	497,218.24	64.22	319,313.56	35.78	177,904.68
G. O. Furniture & Fixtures.....	212,021.28	.....	.....	212,021.28	64.22	136,160.07	35.78	75,861.21
Real Estate.....	78,768.53	.....	.....	78,768.53	64.22	50,585.15	35.78	28,183.38
.....	383,169.88	.....	.....	383,169.88	64.22	246,071.70	35.78	137,098.18

(fol. 9767)

General Property									
Total	\$15,089.99	\$12,638.76	\$2,451.23	\$		\$12,638.76		\$2,451.23	
General Property:									
Undistributed Intangible Property	\$200,000.00	\$200,000.00	\$	\$		\$200,000.00		\$	
Automotive Equip.—Net	92,301.16				92,301.16	64.22	59,275.80	35.78	33,025.36
Dallas Machine Shop	139,785.99				139,785.99	64.22	89,770.56	35.78	50,015.43
Drill Tools—Net	25,713.93				25,713.93	64.22	16,513.49	35.78	9,200.44
G. O. Bldg. & Equipment	497,218.24				497,218.24	64.22	319,313.56	35.78	177,904.68
G. O. Furniture & Fixtures	212,021.28				212,021.28	64.22	136,160.07	35.78	75,861.21
Real Estate	78,768.53				78,768.53	64.22	50,585.15	35.78	28,183.38
Telephone & Telegraph System	383,169.88				383,169.88	64.22	246,071.70	35.78	137,098.18
Tools & Construction Equip.	15,063.58				15,063.58	64.22	9,673.83	35.78	5,389.75
Completed Construction	15,987.46				15,987.46	83.00	13,262.27	17.00	2,725.19
Total	\$1,660,030.06	\$200,000.00	\$	\$1,460,030.05		\$1,140,626.43		\$519,403.62	
Summary									
Production System Property	\$5,408,290.85	\$2,956,700.41	\$2,451,580.44	\$		\$2,956,700.41		\$2,451,580.44	
Gathering System Property	1,478,182.35	833,111.85	645,070.50			833,111.85		645,070.50	
Transmission System Property	36,235,551.91	20,754,991.54	10,899,034.48	4,581,525.89		23,561,613.73		12,673,933.18	
Compressor Station Property	5,039,890.91	3,517,678.97	1,456,319.76	65,892.18		3,575,455.14		1,464,435.77	
Gas Connections	15,089.99	12,638.76	2,451.23			12,638.76		2,451.23	
General Property	1,660,030.05	200,000.00		1,460,030.05		1,140,626.43		519,403.62	
Total	\$49,837,026.06	\$28,275,121.53	\$15,454,456.41	\$6,107,448.12		\$32,080,146.32		\$17,756,879.74	

Defendant's Exhibit No. 46—Continued

Statement of Property Account
 Reproduction Cost New—Less Observed Depreciation
 January 1st, 1933

Classification of Property	Total	Applicable to			Applicable to "D" Operations		Applicable to "E" Operations	
		Area "A"	Area "B"	Area "C"	% of Area "C"	Amount	% of Area "C"	Amount
Production System Property:								
Leaseholds—Developed:								
Panhandle, Okla. Fields	\$2,230,631.05	\$	\$2,230,631.05	\$		\$		\$2,230,631.05
West Texas—Petroia Fields	999,946.30	999,946.30				999,946.30		
Total	\$3,230,577.35	\$999,946.30	\$2,230,631.05			\$999,946.30		\$2,230,631.05
Leaseholds—Undeveloped:								
Panhandle, Okla. Fields	\$505,852.33	\$	\$505,852.33	\$		\$		\$505,852.33
West Texas—Petroia Fields	570,278.51	570,278.51				570,278.51		
Total	\$1,076,130.84	\$570,278.51	\$505,852.33			\$570,278.51		\$505,852.33
Gas Wells & Other Equipment:								
Panhandle, Okla. Fields	\$2,064,503.14	\$	\$2,064,503.14	\$		\$		\$2,064,503.14
West Texas—Petroia Fields	2,737,141.61	2,737,141.61				2,737,141.61		
Total	\$4,801,644.75	\$2,737,141.61	\$2,064,503.14			\$2,737,141.61		\$2,064,503.14
Total	\$9,108,352.94	\$4,307,366.42	\$4,800,986.52	\$		\$4,307,366.42		\$4,800,986.52
Gathering System Property:								
Panhandle, Okla. Fields	\$703,164.47	\$	\$703,164.47	\$		\$		\$703,164.47
West Texas—Petroia Field	894,815.40	894,815.40				894,815.40		
Total	\$1,597,979.87	\$894,815.40	\$703,164.47			\$894,815.40		\$703,164.47
Transmission System Property:								
A—System	\$4,494,757.93	\$	\$4,494,757.93	\$		\$		\$4,494,757.93
B—System	3,802,989.52		2,149,186.07	1,653,803.45	22.17	366,648.22	77.83	2,149,186.07
C—System (Exec. of C-2)	612,788.74			612,788.74	75.21	460,878.41	24.79	1,287,165.23
C2—System	44,053.33			44,053.33	82.63	36,401.27	17.37	151,910.33
E—System	2,078,376.50		332,242.25					7,652.06
F—System	1,187,285.08			1,746,134.15	69.40	1,211,817.40	30.60	332,242.35
G—System	2,084,266.80		2,021,221.34	1,187,285.08	83.13	986,990.08	16.87	534,317.02
H—System	1,983,953.32			63,055.46	83.13	52,418.00	16.87	200,295.00
J—System (Exc. of J2 Sys.)	427,205.27	427,205.27	1,983,953.32					2,021,211.34
J2—System	185,587.09			185,587.09	93.32	427,205.27	6.68	10,637.46
K—System	6,170,971.18	6,170,971.18						1,983,953.32
L—System	3,513,397.26	3,513,397.26						12,397.22
M—System	1,688,452.12	1,688,452.12						
O—System	5,919,147.91	5,919,147.91						
R—System	790,256.17	790,256.17						
Numbered System	1,595,426.09	1,595,426.09						
Miscellaneous—West Texas	740,577.99	740,577.99						
Government	1,200.53		1,200.53					
Total	\$37,320,692.83	\$20,845,433.99	\$10,982,551.54	\$5,492,707.30		\$24,133,776.94		\$13,186,915.89
[col. 9769]								
Compressor Station Property:								
Alvord	\$15,648.17	\$15,648.17	\$	\$		\$15,648.17		\$
Brad	173,577.99	173,577.99				173,577.99		
Breaux	92,884.76	92,884.76				92,884.76		
Breckenridge	298,193.90	298,193.90				298,193.90		
Caddo	270,324.71	270,324.71				270,324.71		
Cheaney	145,134.15	145,134.15				145,134.15		
Deadman	80,235.59	80,235.59				80,235.59		
Eastland	129,854.65	129,854.65				129,854.65		
Fox—Central	258,042.40		258,042.40					258,042.40
Fox—East	105,206.27		105,206.27					105,206.27
Gainesville	83,577.78		83,577.78	83.13		69,478.21	16.87	14,099.57
Gas City	302,594.56		302,594.56					302,594.56
Iber	254,402.72	254,402.72				254,402.72		
Joshua No. 1	501,683.88	501,683.88				501,683.88		
Joshua No. 2	79,450.59	79,450.59				79,450.59		
Locc	140,961.05		140,961.05					140,961.05
Petroia	1,119,786.52		1,119,786.52	32.48		363,706.66	67.52	756,079.86
Pueblo	84,460.53	84,460.53				84,460.53		
Ranger No. 1	136,266.06	136,266.06				136,266.06		
Ranger No. 2	119,077.38	119,077.38				119,077.38		
Ranger No. 3	310,934.58	310,934.58				310,934.58		
Ranger No. 4	172,287.21	172,287.21				172,287.21		
Sipe Springs	187,224.74	187,224.74				187,224.74		
Tiffin	49,277.83	49,277.83				49,277.83		
X Ray	74,543.14	74,543.14				74,543.14		
Total	\$5,185,631.16	\$3,175,462.58	\$806,804.28	\$1,203,364.30		\$3,608,647.45		\$1,576,983.71
Total Direct Property	\$53,212,656.80	\$29,223,078.39	\$17,293,506.81	\$6,696,071.60		\$32,944,606.21		\$20,268,050.59
Percent of Total						61.91		38.09

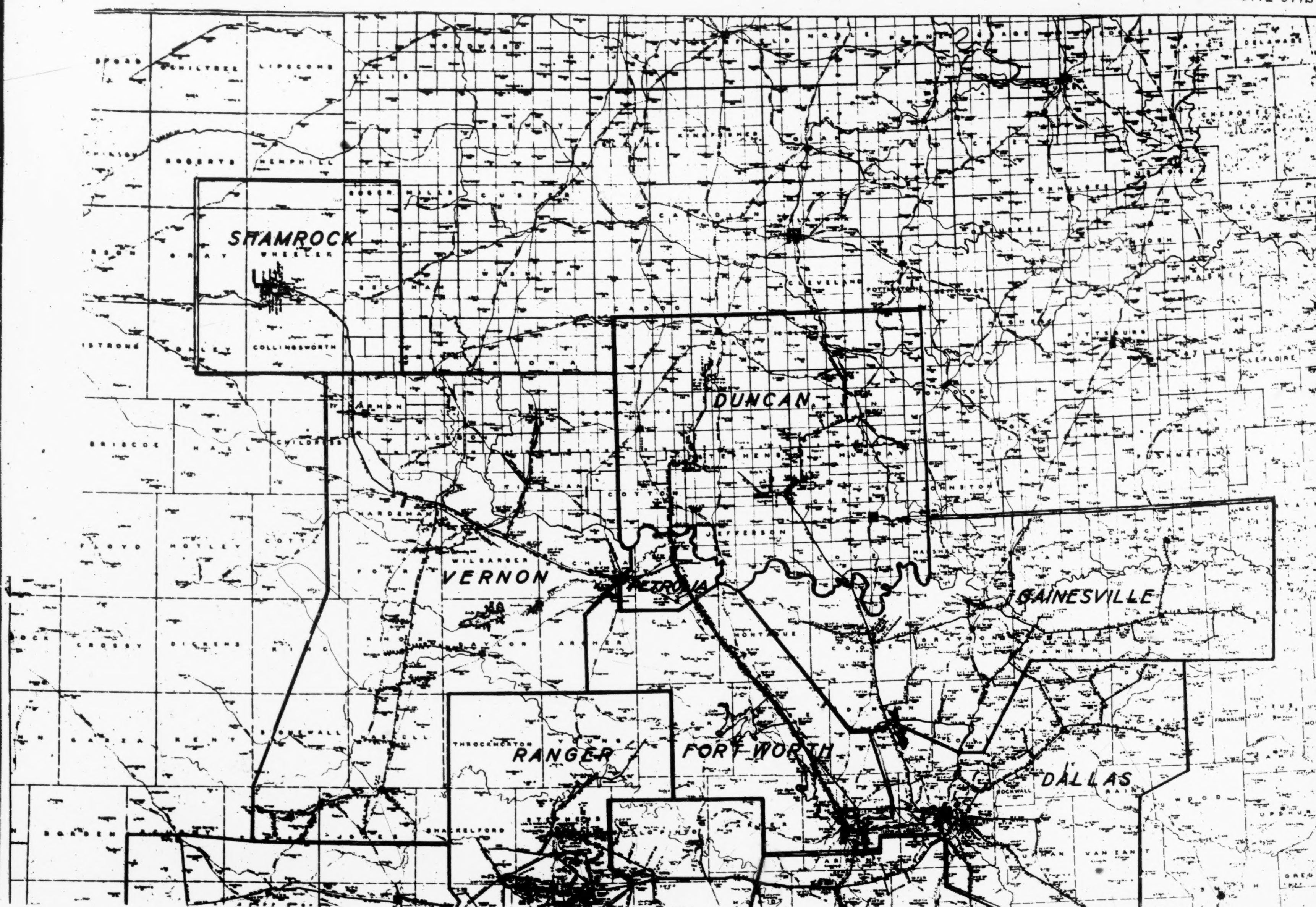
[fol. 9770]

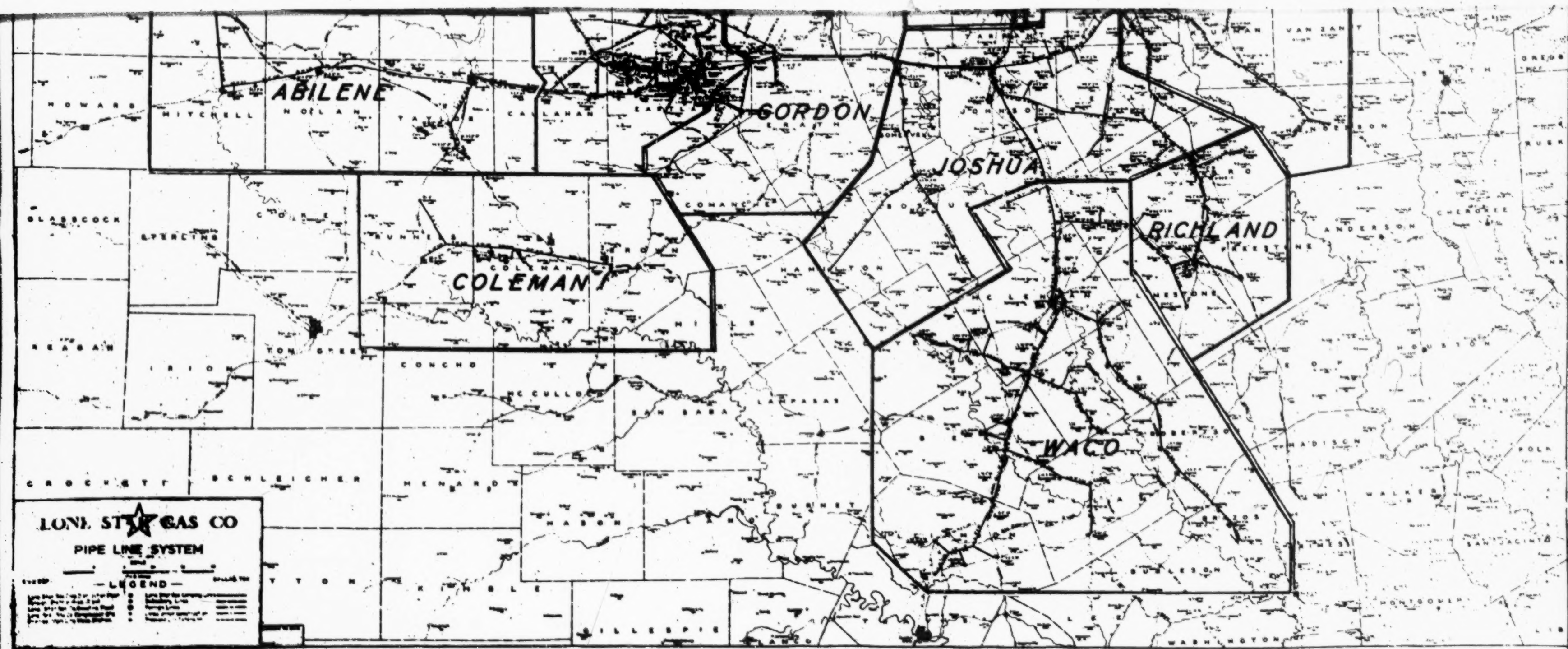
General System Property:

General Office Land	\$52,687.48	\$	\$	\$52,687.48	61.91	\$32,618.82	38.09	\$20,068.66
General Office Land	57,978.09			57,978.09	61.91	35,894.24	38.09	22,083.85
General Office Structures	353,581.81			353,581.81	61.91	218,902.50	38.09	134,679.31

Percent of Total.....						61.91		53.09
[fol. 9770]								
General System Property:								
General Office Land.....	\$52,687.48	\$	\$	\$52,687.48	61.91	\$32,618.82	38.09	\$20,068.66
Other General Land.....	57,978.09			57,978.09	61.91	35,894.24	38.09	22,083.85
General Office Structures.....	353,581.81			353,581.81	61.91	218,902.50	38.09	134,679.31
Other General Structures.....	53,615.15			53,615.15	61.91	33,193.14	38.09	20,422.01
General Office Furn. & Fixtures.....	208,719.80			208,719.80	61.91	129,218.43	38.09	79,501.37
Other General Furn. & Fixtures.....	9,272.06			9,272.06	61.91	5,740.33	38.09	3,531.73
General Shop Equipment.....	115,239.09			115,239.09	61.91	71,344.52	38.09	43,894.57
General Tools.....	121,647.47			121,647.47	61.91	75,311.95	38.09	46,335.52
Auto. & Construction Equip.....	325,757.05			325,757.05	61.91	201,676.19	38.09	124,080.86
General Telephone System.....	392,393.82			392,393.82	61.91	242,931.01	38.09	149,462.81
Final Engineering Records.....	905,656.54			905,656.54	61.91	560,691.96	38.09	344,964.58
Total.....	\$2,596,548.36	\$	\$	\$2,596,548.36	61.91	\$1,607,523.09	38.09	\$989,025.27
Non-Physical Values:								
Preliminary & Organization.....	\$4,434,328.00	\$	\$	\$4,434,328.00	61.91	\$2,745,292.46	38.09	\$1,689,035.54
Working Capital.....	1,701,600.00			1,701,600.00	61.91	1,053,460.56	38.09	648,139.44
Total.....	\$6,135,928.00	\$	\$	\$6,135,928.00	61.91	\$3,798,753.02	38.09	\$2,337,174.98
Production System Property.....	\$9,108,352.94	\$4,307,366.42	\$4,800,986.52			\$4,307,366.42		\$4,800,986.52
Gathering System Property.....	1,597,979.87	894,815.40	703,164.47			894,815.40		703,164.47
Transmission System Property.....	37,320,692.83	20,845,433.99	10,982,551.54	\$5,492,707.30		24,133,776.94		13,186,615.89
Compressor Station Property.....	5,185,631.16	3,175,462.58	806,804.28	1,203,364.30		3,608,647.45		1,576,983.71
General System Property.....	2,566,548.36			2,596,548.36		1,607,523.09		989,025.27
Non-Physical Values.....	6,135,928.00			6,135,928.00		3,798,753.02		2,337,174.98
Total.....	\$61,945,133.16	\$29,223,078.39	\$17,293,506.81	\$15,428,547.96		\$38,350,882.32		\$23,594,250.84

(Here follows 1 map side folio 9771-9772)





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Lone Star Gas Company

Comparison of Estimated Costs in Plaintiff's Exhibit 6 With Historical or Actual Costs

[fol. 9774]

Comparison of Excavation Cost Between Defendant's Exhibit 28,

Plaintiff's Exhibit 6, and Actual Book Costs

Line	Lineal Feet	Cubic Yards	Defendant's Exhibit 28	Plaintiff's Exhibit 6	Book Cost	Plaintiff's Exhibit 6 Less than Book Cost	
						Amount	Per cent
2nd B.....	517,644	167,704.9	\$124,512.12	\$110,423.08	\$156,650.41	\$ 46,227.33	29.5
KB 16 In...	123,347	28,171.7	20,931.46	18,047.51	21,033.48	2,986.17	14.2
K-5.....	260,309	29,006.8	26,201.92	19,525.05	47,922.20	28,397.15	59.3
K-5-1.....	174,875	20,129.8	16,344.17	11,587.11	16,118.74	4,531.63	28.1
O-29.....	336,152	49,800.2	29,773.73	18,675.07	37,963.07	19,288.00	50.8
L-26.....	122,141	16,084.3	8,806.26	6,031.61	10,161.25	4,129.64	40.6
	1,534,468	310,897.7	\$226,569.66	\$184,289.43	\$289,849.15	\$105,559.92	36.4
290.6 Miles							

7133

Defendant's Exhibit No. 47—Continued

[fols. 9775-9776]

Comparison Between Plaintiff's Exhibit 6 and Actual Book
Cost of Transmission System Property

System	Plaintiff's Exhibit 6	Book Cost	Difference
A.....	\$ 3,626,169.02	\$ 4,085,103.81	\$ 458,934.79
B.....	1,462,159.49	1,249,278.90	214,880.59*
2nd B.....	1,840,895.86	1,979,458.56	138,562.70
C.....	629,696.67	574,579.44	55,117.23*
E.....	1,587,891.33	1,583,787.63	4,103.70*
F.....	1,109,024.31	839,532.93	269,491.38*
G.....	79,138.34	89,883.01	10,744.67
H.....	6,908.32	5,098.46	1,809.86*
J.....	578,265.99	738,010.16	159,744.17
K.....	5,210,179.82	6,243,631.44	1,033,451.62
L.....	3,130,564.13	3,651,235.99	520,671.86
M.....	1,548,424.22	1,829,030.82	280,606.60
O.....	5,094,241.68	5,812,337.05	718,095.37
R.....	653,209.14	710,519.98	57,310.84
No.....	1,401,762.28	1,425,279.08	23,516.80
T. P. U.....	700,228.70	538,268.28	161,960.42*
U. S. Gov't.....	1,036.37	.....	1,036.37*
Total.....	<u>\$28,659,795.67</u>	<u>\$31,353,035.54</u>	<u>\$2,693,239.87</u>

* Indicates Plaintiff's Exhibit 6 in Excess of Book Cost.

[fol. 9777]

DEFENDANT'S EXHIBIT No. 48

Lone Star Gas Company

Historical Rate of Business Development

Major Transportation Lines

[fol. 9778]

History of Line K

Completed 1919

Deliveries in M. C. F.

Year	KA Deliveries	Line K at Gordon	Total Line K
1920.....	475,083	.....	475,083
1921.....	1,673,510	.....	1,673,510*
1922.....	1,236,920	.....	1,236,920
1923.....	1,762,233	429,209	2,191,442
1924.....	784,632	12,969,857	13,754,489
1925.....	1,337,715	14,841,418	16,179,133
1926*.....	582,541	11,809,086	12,391,627
1927.....	346,570	9,110,875	9,457,445
1928.....	400,889	10,018,664	10,419,553
1929.....	588,533	9,951,749	10,540,282
1930.....	598,799	9,921,893	10,520,692
1931.....	491,952	8,992,024	9,483,976

* Line O in Service.

Defendant's Exhibit No. 48—Continued

3319

[fol. 9779]

Line "O" to Lisbon, Texas

Gas Purchased—Mcf.—Domestic and Unaccounted for

Town	Date	1926	1927	1928	1929	1930	1931	1932
Mansfield.....	4-30-26	3,850	9,059	9,987	11,758	10,982	9,997	10,728
Midlothian.....	3-15-26	733	14,617	18,215	18,928	17,105	14,746	14,444
Ferris.....	9-3-26	3,675	11,992	15,079	17,093	16,649	14,695	15,040
Lancaster.....	9-27-26	3,245	11,197	14,219	15,563	15,688	15,990	16,040
Garland.....	3-19-27	.....	16,088	19,727	22,634	22,972	21,769	23,898
Terrell.....	10-29-26	5,459	44,993	66,561	78,106	74,845	75,389	93,624
Mesquite.....	11-5-26	945	6,773	9,100	10,404	11,022	11,725	10,899
Forney.....	11-29-26	553	12,444	16,332	17,542	16,593	19,440	17,840
Kaufman.....	11-27-26	288	12,749	23,994	27,768	27,053	23,193	24,544
Greenville.....	10-7-26	24,429	115,652	143,805	172,601	172,185	167,603	197,840
Rowlett.....	10-4-26	522	1,582	1,931	2,415	2,422	2,253	2,491
Rockwall.....	10-14-26	3,206	13,257	17,471	19,064	16,199	14,577	14,649
Royse City.....	10-14-26	4,078	15,976	18,167	19,517	20,247	18,204	17,850
Caddo Mills.....	12-21-26	.....	3,385	5,080	5,680	5,476	1,670	5,397
Bucnker's O. H.....	11-7-26	18	1,861	3,592	4,346	3,317	5,185	6,159
Urbandale.....	12-15-26	.....	1,826	3,128	3,718	4,451	5,549	6,045
Venus.....	5-19-27	.....	2,747	7,990	7,838	8,235	6,595	6,646
Cedar Hill.....	4-1-27	.....	1,104	2,844	2,967	2,866	2,898	2,916
Hutchins.....	2-3-27	.....	1,715	3,555	3,433	3,151	3,188	3,369
Plano.....	2-11-27	.....	8,649	17,274	18,980	18,316	17,752	19,260
Richardson.....	1-19-27	.....	3,196	6,533	7,608	7,886	8,242	8,735
Lewisville.....	1-4-27	.....	9,641	11,015	9,747	9,096	8,435	8,390
Farmersville.....	4-4-27	.....	8,376	20,374	22,583	21,880	20,002	25,202
Nevada.....	3-26-27	.....	1,787	5,162	5,787	5,206	4,603	4,163
Josephine.....	3-18-27	.....	1,908	4,668	4,476	4,188	3,740	4,014
Cooper.....	12-10-27	68	16,774	19,378	27,641	27,138	27,058	26,347
Commerce.....	6-2-27	.....	44,111	58,815	61,148	61,148	69,581	67,190
Wolfe City.....	10-14-27	.....	2,264	10,062	11,010	10,847	10,510	11,163
Ladonia.....	10-19-27	.....	2,140	9,515	10,750	10,794	10,476	11,510
Farlie.....	10-29-27	.....	277	1,413	1,553	1,359	1,359	1,293
Cumby.....	6-20-27	.....	2,240	6,577	7,249	6,562	5,789	5,651
Sulphur Springs.....	7-15-27	.....	14,440	51,071	60,731	60,382	61,415	57,733
Celeste.....	10-28-27	.....	1,298	6,033	7,010	7,004	6,063	7,155

Defendant's Exhibit No. 48—Continued

Line "O" to Lisbon, Texas—Continued

Gas Purchased—Mcf.—Domestic and Unaccounted for

Town	Date	1926	1927	1928	1929	1930	1931	1932
Leonard.....	11-17-27	.....	1,701	12,144	15,210	15,189	14,333	14,899
Campbell.....	11- 3-27	.....	552	2,677	3,555	3,681	3,492	3,327
Lillian.....	3-13-28	.....	.....	592	1,564	1,473	1,655	1,619
Britton.....	4- 5-28	.....	.....	651	1,488	1,487	1,473	1,417
Duncanville.....	3- 5-28	.....	.....	1,276	2,919	3,066	2,982	3,227
Fate.....	3-10-28	.....	.....	1,038	2,809	2,727	2,917	2,715
Peniel.....	5-24-28	.....	.....	676	2,353	2,471	2,450	2,287
Palmer.....	9-29-28	.....	.....	2,459	9,153	9,559	8,890	8,327
Wilmer.....	5-24-28	.....	.....	1,350	3,957	3,900	3,804	4,400
Wylie.....	3-27-29	.....	.....	.....	2,895	6,601	6,462	6,343
Gordon.....	11-22-29	.....	.....	.....	318	3,309	3,611	3,911
Athens.....	12-14-29	.....	.....	.....	912	32,526	43,649	41,567
Malakoff.....	12-16-29	.....	.....	.....	135	4,428	7,103	8,590
[fol. 9780]								
Seagoville.....	12-10-29	.....	.....	.....	105	2,831	3,012	3,042
Crandall.....	12-10-29	.....	.....	.....	101	3,756	3,762	3,565
Kemp.....	12-16-29	.....	.....	.....	72	6,765	7,187	7,172
Mabank.....	12-19-29	.....	.....	.....	77	5,286	6,838	7,047
Enloe.....	4-25-30	.....	.....	.....	.....	726	1,652	1,482
Pecan Gap.....	.....	.....	.....	.....	.....	2,873	3,317	3,596
Scurry.....	2-14-30	.....	.....	.....	.....	495	764	801
Total.....	.....	51,001	374,328	636,826	762,938	816,413	828,584	977,549
Per Cent of Maximum Year.....	5.81	42.66	72.57	86.94	93.03	94.42	100.00

(Here follows one paster, side folios 9781 and 9782)

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Defendant's Exhibit No. 48—Continued

[fol. 9781]

Historical Idle Plant—L System

Annual Domestic Sales—M. Cubic Feet

Towns Served	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Waco*	64,173	416,822	448,606	480,390	512,174	543,958	575,742	607,526	661,520	755,322	805,506	701,107	734,660
Cleburne	8,323	45,051	72,128	95,640	123,768	138,251	164,656	148,022	168,472	183,323	183,324	165,664	152,156
Hillsboro	3,370	25,073	46,775	67,275	81,139	89,250	103,331	87,413	107,110	117,972	117,285	104,865	89,797
Kenne			961	569	638	6,389	6,134	6,399	6,638	8,362	8,435	8,094	8,587
Itasca				2,816	2,853	27,016	24,978	27,595	30,379	29,950	27,085	28,624	24,012
West				1,524	1,654	17,693	17,703	15,318	21,055	27,741	23,463	24,627	28,023
Elm Mott								1,322	2,074	2,358	2,297	2,165	1,948
Covington								1,784	4,191	4,124	3,191	3,488	3,679
Marlin								9,874	44,212	54,570	67,447	63,628	57,529
Mart								7,044	27,721	31,557	34,375	41,159	35,620
Temple								19,823	124,392	167,904	182,506	182,323	168,234
Troy									2,533	4,045	4,705	4,871	5,013
Belton									16,323	29,309	30,946	37,449	43,511
Eddy									1,771	4,512	4,899	4,751	4,477
Little River									212	1,113	1,286	1,335	1,245
Bremond									1,927	5,185	5,173	4,858	4,783
Bryan									22,770	58,140	66,488	73,799	90,583
College Station									6,466	17,798	21,602	23,129	25,220
Lorena									1,412	3,685	3,780	4,068	3,972
Gatesville									8,901	28,881	31,993	37,121	43,716
Moody									1,316	7,288	12,668	9,793	10,252
McGregor									6,025	14,920	16,131	16,993	16,449
Oglesby									895	2,681	3,023	3,716	3,926
Calvert									5,436	23,571	17,637	20,281	22,398
Hearne									6,553	18,439	21,115	22,349	21,383
Regan									654	2,608	2,517	2,388	3,505
Riesel									633	2,295	2,943	3,183	2,872
Buckholts									531	1,773	1,787	1,862	1,956
Cameron									9,586	33,500	38,325	39,176	41,525
Rogers									2,728	9,089	9,528	10,193	11,145
Bartlett									4,644	15,806	16,598	18,803	16,121
Holland									2,229	7,250	8,221	8,690	8,146
Rockdale									3,695	14,211	16,618	15,966	16,802
Georgetown									7,548	28,860	33,434	39,909	36,777
Granger									2,991	11,168	13,065	14,526	13,052
Hutto									1,130	5,149	5,149	4,635	4,335
Round Rock									1,450	5,798	6,674	6,957	7,698
Taylor									13,700	53,494	65,012	71,869	64,643
Bell Meade									213	1,371	2,240	2,803	3,684
Whitney										2,905	8,920	8,079	8,038
Chilton										55	2,856	4,624	4,408
Lott										563	5,302	5,939	5,424

[fol. 9782]

Rosebud										760	11,419	14,920	14,473
Osceola											932	1,133	1,273
Total Annual Domestic Sales	75,866	486,946	568,470	648,214	722,226	822,557	892,544	932,120	1,331,976	1,799,400	1,947,900	1,865,912	1,867,040
Per cent of Total of Maximum Sales to each town Served: (Maximum Deliveries 2,048,691 M. Cubic Feet)...	3.7	23.7	27.7	31.6	35.2	40.1	43.5	45.5	65.02	87.85	95.08	91.08	91.13

* Waco, Domestic Sales—No record for the years 1920, 1921, 1922, 1923, 1924, 1925, and 1926. Volumes for these years estimated.

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Gas Purchased—Mcf.—Domestic and Unaccounted for

Town	Date	1925	1926	1927	1928	1929	1930	1931	1932
Durant.....	11-24-25		66,806	82,047	101,795	116,700	111,077	116,938	126,691
Paris.....	12-31-25	2,519	121,027	167,987	211,380	248,640	249,078	207,851	228,089
Achille.....	6-4-26		568	1,001	1,389	2,143	1,929	1,768	1,585
Bonham.....	2-26-26		26,441	54,908	68,434	81,914	81,887	77,019	77,068
Honey Grove.....	3-8-26		12,341	24,352	30,472	31,942	30,157	31,144	36,441
Dodd City.....	6-3-27			1,363	4,133	5,019	4,301	3,808	3,852
Anna.....	9-1-27			939	3,982	4,246	4,135	4,196	4,098
Ector.....	7-18-27			919	2,683	2,907	3,226	2,489	2,509
Whitewright.....	7-18-27								
Trenton.....	8-5-27			4,555	16,474	19,592	19,743	18,431	18,750
Westminster.....	6-30-27			1,188	4,520	5,315	5,148	5,058	5,386
Van Alstyne.....	8-19-27			364	1,164	1,219	1,331	1,170	1,624
Howe.....	8-28-29			3,410	13,766	16,034	17,463	14,642	16,863
Bells.....	3-2-27					2,112	6,699	6,365	7,084
Savoy.....	11-2-27			838	3,645	3,978	3,762	3,482	3,562
Windom.....	2-16-28			598	2,482	2,795	2,962	2,807	2,399
Brookston.....	3-15-28				1,542	2,972	2,950	3,012	3,109
Petty.....	3-30-28				983	2,283	2,228	1,943	1,846
Roxton.....	5-8-28				907	2,369	2,097	2,323	2,043
Collinsville.....	6-8-28				2,532	8,048	7,322	6,599	7,420
Clarksville.....	10-24-29				1,884	5,684	5,380	4,687	4,845
Hugo.....	12-26-28					6,485	23,981	24,707	25,675
Ravenna.....	7-19-29					36,379	49,936	47,334	46,720
Detroit.....	9-11-29					989	2,076	1,908	2,429
Bagwell.....	10-23-29					732	3,227	2,765	2,383
Caddo.....	4-3-30					215	709	653	699
Melissa.....	2-4-30						2,889	5,921	5,890
Blossom.....	1-5-30						1,462	2,452	3,027
Deport.....	4-22-30						1,650	1,598	2,289
Fulbright.....	4-8-30						2,290	4,917	4,586
							274	4,436	525
Total.....		2,519	227,183	344,469	474,167	610,012	651,369	608,360	649,405
Per Cent of Maximum Year..		.39	34.88	52.04	72.80	93.65	100.00	98.40	99.70

[fol. 9785] DEFENDANT'S EXHIBIT No. 49

Lone Star Gas Company

Comparison of Historical Replacements, Removals and
Abandonments, Main, Tap and Field Lines, with Calculated
Replacements, Removals and Abandonments

Plaintiff's Exhibit 7

[fol. 9786] Comparison of Calculated Mortalities of Steel
Pipe, Main and Tap Lines, Based on Pages
4 and 5, Plaintiff's Exhibit 7, with Historical
Mortalities, Main and Tap Lines

Lone Star Gas Company, 1910 to 1933

Calculated mortalities—Table I	337.75
Calculated mortalities—Table II	320.83
Calculated mortalities—Table III	19.48
Calculated mortalities—Table IV	7.41

Miles of Three Inch Equivalent Diameter
Pipe

685.47

Feet of Three Inch Equivalent Diameter Pipe .. 3,619,287

Historical Replacements, Removals and Aban-
donments—Main and Tap Lines—1910 to
1933—Feet of Three inch Equivalent Diameter
pipe

5,854,774

Ratio of Calculated to Historical Replacements,
Removals and Abandonments

61.8%

Defendant's Exhibit No. 49—Continued

[fol. 9787]

Table I

Main and Tap Lines

Calculation of Pipe Mortalities from Physical Causes
Based upon Plaintiff's Exhibit 7—Page 4

Service Years	A	B	C
22.....	9.45	22.22	2.10
21.....	50.16	19.92	9.99
20.....	645.20	17.74	114.46
19.....	141.66	15.69	22.23
18.....	.....	13.78	.....
17.....	20.10	12.00	2.41
16.....	783.40	10.35	81.08
15.....	.....	8.82	.....
14.....	4.00	7.43	.30
13.....	441.31	6.16	27.18
12.....	614.08	5.02	30.83
11.....	31.68	4.01	1.27
10.....	124.41	3.13	3.89
9.....	259.50	2.38	6.18
8.....	197.95	1.75	3.46
7.....	130.86	1.24	1.62
6.....	1,900.07	.84	15.96
5.....	1,843.90	.53	9.77
4.....	851.98	.31	2.64
3.....	1,412.41	.16	2.26
2.....	152.26	.07	.11
1.....	44.91	.02	.01
Total.....	9,659.29		337.75

A—Miles of 3 inch equivalent diameter pipe installed by years exclusive of lines acquired by purchase 1927, and pipe removed prior to January 1, 1933.

B—Cumulative replacement rates for corresponding service years from Plaintiff's Exhibit 7, Page 4.

C—Calculated replacements in miles of 3 inch equivalent diameter pipe.

Defendant's Exhibit No. 49—Continued

[fol. 9788]

Table II

Main and Tap Lines

Calculation of Major Removals
Based upon Plaintiff's Exhibit 7—Page 4

Service Years	A	B	C
22.....	654.65	8.54	55.91
21.....	50.16	8.15	4.09
20.....		7.76	
19.....	287.86	7.38	21.23
18.....	279.41	6.99	19.52
17.....	5.30	6.60	.34
16.....	372.59	6.21	23.14
15.....		5.82	
14.....	4.00	5.43	.22
13.....	441.31	5.05	22.27
12.....	614.08	4.66	28.61
11.....	44.31	4.27	1.89
10.....	124.41	3.88	4.83
9.....	259.50	3.49	9.07
8.....	197.95	3.11	6.15
7.....	167.86	2.72	4.56
6.....	1,900.07	2.33	44.26
5.....	2,163.58	1.94	42.00
4.....	945.54	1.55	14.68
3.....	1,412.41	1.16	16.45
2.....	157.36	.78	1.22
1.....	101.69	.39	.39
Total.....	10,184.04		320.83

A—Miles of 3 inch equivalent diameter pipe installed by years including pipe removed prior to January 1, 1933.

B—Cumulative percentages for service years. Major removals Plaintiff's Exhibit 7—Page 4. Annual rate = .3882% (.289% divided by .744).

C—Calculated major removals by service years in miles of three inch equivalent diameter pipe.

Defendant's Exhibit No. 49—Continued

[fol. 9789]

Table III

Main and Tap Lines

Lines Acquired by Purchase 1927

Calculation of Pipe Mortalities from Physical Causes
Based upon Plaintiff's Exhibit 7—Page 4

Year Installed	Service Years Inclusive	A	B	C
1912.....	20—15	16.65	10.31	1.72
1913.....	19—14	92.88	9.53	8.85
1918.....	14— 9	53.69	5.68	3.05
1919.....	13— 8	58.13	4.92	2.86
1920.....	12— 7	27.96	4.18	1.17
1921.....	11— 6	32.53	3.48	1.13
1922.....	10— 5	21.93	2.82	.62
1924.....	8— 3	5.02	1.68	.08
Total.....		<u>308.79</u>		<u>19.48</u>

A—Miles of 3 inch equivalent diameter pipe acquired by purchase 1927.

B—Cumulative replacement rates from Plaintiff's Exhibit 7—Page 4 giving effect to date of installation and years of service in the system of Lone Star Gas Company.

C—Calculated replacements in miles of 3 inch equivalent diameter pipe.

Defendant's Exhibit No. 49—Continued

[fol. 9790]

Table IV

Main and Tap Lines

Lines Removed Prior to January 1, 1933

Calculation of Pipe Mortalities from Physical Causes
Based upon Plaintiff's Exhibit 7—Page 4.

Service Years Inclusive	A	B	C
3—2.....	42.22	.14	.06
13—2.....	12.63	6.14	.78
5—0.....	10.01	.53	.05
6—5.....	14.56	.53	.08
9—5.....	3.03	2.07	.06
7—0.....	11.78	1.24	.15
14—7.....	25.22	6.59	1.66
14—10.....	41.92	5.05	2.12
2—0.....	5.10	.07	.....
14—10.....	48.61	5.05	2.45
Total.....	<u>215.08</u>		<u>7.41</u>

A—Miles of 3 inch equivalent diameter pipe removed prior to January 1, 1933.

B—Cumulative replacement rates from Plaintiff's Exhibit 7, Page 4, giving effect to date of installation and date of removal from the system of Lone Star Gas Company.

C—Calculated replacements in miles of 3 inch equivalent diameter pipe.

Defendant's Exhibit No. 49—Continued

[fols. 9791-9792]

Table V

Tabulation Showing
Effect of Calculations Shown on Page 6—Plaintiff's Exhibit 7
When Applied to the Historical Experience
of the Field Lines of Lone Star Gas Company

Years	A	B	C	D	E	F
1913.....	21.72	114,682	.....	.....	+2.77	3,177
1914.....	21.72	114,682	.....	.....	+2.77	6,545
1915.....	21.77	114,682	.....	.....	+2.77	10,115
1916.....	21.72	114,682	.....	.....	+2.77	13,899
1917.....	21.72	114,682	.....	.....	+2.77	17,910
1918.....	24.13	127,406	.....	.....	+2.77	22,514
1919.....	82.43	435,230	.....	.....	+2.77	35,920
1920.....	179.80	949,344	10,161	1.07	+1.70	48,233
1921.....	215.66	1,138,685	77,924	6.84	-4.07	4,783
1922.....	217.27	1,147,186	88,348	7.70	-4.93	- 51,486
1923.....	226.25	1,194,600	35,048	2.93	- .16	- 56,486
1924.....	322.71	1,703,909	48,582	2.85	- .08	- 61,238
1925.....	359.32	1,897,210	100,856	5.32	-2.55	-113,291
1926.....	441.05	2,328,744	179,760	7.72	-4.95	-235,362
1927.....	475.17	2,508,898	138,078	5.50	-2.73	-317,977
1928.....	624.28	3,296,198	51,748	1.57	+1.20	-297,501
1929.....	921.81	4,867,157	104,874	2.15	+ .62	-286,482
1930.....	1,121.21	5,919,989	100,990	1.71	+1.06	-239,534
1931.....	1,146.57	6,053,890	96,196	1.59	+1.18	-182,470
1932.....	1,206.88	6,372,326	272	.....	+2.77	- 16,905

A—Cumulative miles of 3 inch equivalent diameter pipe in service in the Field Lines of Lone Star Gas Company to January 1, 1933.

B—Cumulative feet of 3 inch equivalent diameter pipe in service in the Field Lines of Lone Star Gas Company to January 1, 1933.

C—Feet of 3 inch equivalent diameter pipe replaced, removed or abandoned by years.

D—Per cent of mortalities by years to cumulative feet of pipe in service by years.

E—Net annual rate from Page 6—Plaintiff's Exhibit 7.

F—Net credit balance for amortization by years 6 per cent sinking fund basis. In feet of 3 inch equivalent diameter pipe.

3328

[fol. 9793]

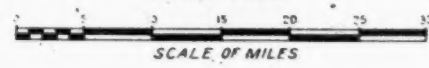
DEFENDANT'S EXHIBIT No. 50

(Here follows 1 map, side folios 9794-9795, and 1 paster,
side folios 9796 to 9799.)

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LONE STAR GAS COMPANY
RECEIPT AND DISPOSITION OF GAS
TRANSMISSION SYSTEMS A & H
YEAR 1933



SHAMROCK FIELD
PURCHASED & PRODUCED
6,448,138 M.C.F.

HOLLIS
206,298 M.C.F.

SNYDER
13,610 M.C.F.

MOUNTAIN PARK
4,880 M.C.F.

OKLAHOMA

TIPTON
24,060 M.C.F.

MANITOU
2,977 M.C.F.

FREDERICK
75,756 M.C.F.

DAVIDSON
6,474 M.C.F.

GAS CITY COMP ST
27,764 M.C.F.

DUJAN FIELD
PURCHASED & PRODUCED
54,312 M.C.F.

WALTERS
36,177 M.C.F.

TEMPLE
22,077 M.C.F.

MISCELLANEOUS
18,641 M.C.F.

HASTINGS
3,974 M.C.F.

WAURIKA
35,730 M.C.F.

RYAN
32,120 M.C.F.

BYERS
12,181 M.C.F.

PETROLIA
11,604 M.C.F.

PETROLIA COMP. STA

WICHITA FALLS
672,149 M.C.F.

NET DELIVERY AT PETROLIA
3,381,496 M.C.F.

NET DELIVERY AT PETROLIA
588,673 M.C.F.

SHASTA OIL CO.
139,107 M.C.F.

IOWA PARK
24,541 M.C.F.

ELECTRA
15,750 M.C.F.

HARROLD
3,753 M.C.F.

OKLAUNION
4,498 M.C.F.

VERNON
96,414 M.C.F.

TOLBERT
607 M.C.F.

CHILLICOTHE
27,849 M.C.F.

WEST TEX. UTIL.
1,713,055 M.C.F.

TEXAS

[fol. 9796-9797]

DEFENDANT'S EXHIBIT No. 51

Lone Star Group Companies

Statement of Pipe Purchases—Through Pittsburgh Office

Plain End—Lap Weld

Consignee	Destination	Size	Weight	Length	Order No.	Invoice Date	Quantity Ordered	Voucher No.	Voucher Date	Purchase Price		As of Dec. 31, 1931		As of Dec. 31, 1931	
										F. O. B. Mill	F. O. B. Mill	Quotation F. O. B. Mill	Quotation F. O. B. Mill	Freese's Price F. O. B. Mill	Freese's Price F. O. B. Mill
Lone Star Gas Company	Dallas	2"	3.652#	S. L.	30008	3-30-31	6,000'	D-262	Apr. 1931	\$12.78	\$12.52	\$11.35	\$11.12	\$9.89	\$9.70
"	Dallas	2"	"	S. L.	30602	5-14-31	8,000'	E-757	May 1931	12.50	12.25	(13.69)	(13.41)		
"	Dallas	2"	"	S. L.	31640	8-6-31	15,000'	H-1020	Aug. 1931	12.25	12.01				
"	Dallas	2"	"	S. L.	31106	6-15-31	3,000'	G-180	July 1931	12.25	12.01				
"	Dallas	2"	"	S. L.	31810	8-7-31	15,000'	H-673	Aug. 1931	12.65	12.40				
Community Natural Gas Co.	Dallas	2"	"	S. L.	9629	3-2-32	2,000'	C-185	Mar. 1932	13.69	13.41				
"	Dallas	2"	"	S. L.	9631	2-29-32	2,000'	C-102	Mar. 1932	12.65	12.40				
Municipal Gas Company	Hillsboro	2"	"	S. L.	2964	5-29-31	5,000'	E-245	May 1931	12.50	12.25				
"	Denison	2"	"	S. L.	7083	11-28-31	3,000'	L-255	Nov. 1931	13.30	13.03				
"	McKinney	2"	"	S. L.	7488	12-16-31	5,000'	M-277	Dec. 1931	13.30	13.03				
Lone Star Gas Company	Dallas	3"	7.575#	S. L.	30602	5-14-31	3,000'	E-757	May 1931	18.00	17.64				
"	Dallas	3"	"	S. L.	31640	7-25-31	9,000'	H-191	Aug. 1931	16.60	16.27	25.08	24.58	16.60	16.27
"	Dallas	3"	"	S. L.	31640	7-31-31	6,000'	H-246	Aug. 1931	16.60	16.27				
"	Dallas	3"	"	S. L.	30008	3-30-31	3,000'	D-262	Apr. 1931	18.00	17.64				
Community Natural Gas Co.	Cisco	3"	"	D. L.	8218	1-6-32	5,000'	A-407	Jan. 1932	18.15	17.79				
Lone Star Gas Company	Dallas	4"	10.700#	S. L.	31640	7-27-31	6,800'	H-221	Aug. 1931	23.60	23.13	27.06	26.52	23.60	23.13
Community Natural Gas Co.	Brownwood	4"	"	S. L.	6643	10-27-31	6,500'	L-55	Nov. 1931	24.60	24.11				
"	Dallas	4"	"	S. L.	9629	3-2-32	3,000'	C-185	Mar. 1932	25.70	25.19				
"	Dallas	4"	"	S. L.	9631	2-29-32	3,000'	C-102	Mar. 1932	24.60	24.11				
"	Cisco	4"	"	D. L.	8218	1-6-32	8,000'	A-407	Jan. 1932	25.50	24.99				
"	Abilene	4"	"	S. L.	9484	2-29-32	4,000'	C-102	Mar. 1932	24.60	24.11				
Municipal Gas Company	Hillsboro	4"	"	S. L.	2964	5-29-31	10,000'	E-245	May 1931	24.50	24.01				
"	Denton	4"	"	S. L.	3976	7-20-31	400'	G-253	July 1931	24.00	23.52				
"	Hillsboro	4"	"	S. L.	4778	8-22-31	5,000'	H-205	Aug. 1931	27.06	26.52				
"	McKinney	4"	"	S. L.	7488	12-16-31	5,000'	M-277	Dec. 1931	27.06	26.52				
"	Denison	4"	"	S. L.	7083	11-28-31	1,500'	L-255	Nov. 1931	27.06	26.52				
Lone Star Gas Company	Ranger	6"	18.970#	D. L.	29526	3-10-31	5,000'	D-255	Apr. 1931	45.00	44.10				
"	Dallas	6"	"	S. L.	31106	6-15-31	1,000'	G-180	July 1931	41.65	40.82	47.80	46.84	41.65	40.82
"	Shamrock	6"	"	D. L.	33096	11-20-31	6,000'	M-164	Dec. 1931	45.00	44.10				
"	Cisco	6"	"	D. L.	29526	3-11-31	4,000'	D-255	Apr. 1931	45.00	44.10				
"	Dallas	6"	"	S. L.	30008	3-30-31	1,000'	D-262	Apr. 1931	43.37	42.50				
Municipal Gas Company	Denton	6"	"	S. L.	1693	3-19-31	5,000'	C-238	Mar. 1931	43.40	42.53				
"	Hillsboro	6"	"	S. L.	2964	6-5-31	6,000'	F-252	June 1931	43.75	42.88				
"	Denton	6"	"	S. L.	3976	7-18-31	4,000'	G-253	July 1931	42.50	41.65				
"	Denton	6"	"	S. L.	4837	8-29-31	6,500'	H-205	Aug. 1931	47.80	46.84				
"	Sherman	6"	"	S. L.	5625	9-29-31	2,000'	J-256	Sept. 1931	47.80	46.84				
"	Wichita Falls	6"	"	S. L.	5143	9-12-31	3,000'	J-256	Sept. 1931	47.80	46.84				
"	Denison	6"	"	S. L.	5322	9-18-31	6,000'	J-189	Sept. 1931	48.55	47.58				
"	Denison	6"	"	S. L.	7083	11-28-31	1,000'	L-255	Nov. 1931	47.80	46.84				

[fol. 9798-9799]

Lone Star Gas Company	Dallas	8"	25.062#	S. L.	31887	7-31-31	2,000'	H-251	Aug. 1931	\$58.00	\$56.84	\$65.37	\$64.06	\$58.00	\$56.84
"	Dallas	8"	"	S. L.	31106	6-15-31	1,000'	G-180	July 1931	41.65	40.82				
Municipal Gas Company	Sherman	8"	"	I.											
Lone Star Gas Company	Petrolia	10"	31.44#	S. L.	2	-31	700'								
"	Waco	10"	"	S. L.	2	-31	500'								
"	Waco	10"	"	S. L.	2	-31	500'								
"	Ft. Worth	10"	"	S. L.	311	-31	1,500'								
"	Ranger	10"	"	S. L.	295	-31	1,400'								
"	Shamrock	10"	"	S. L.	3	-31	400'								
Municipal Gas Company	Wichita Falls	10"	"	S. L.		-31	1,000'								
Lone Star Gas Company	Duncan, Okla.	12"	37.45#	S. L.		-31	1,250'								
Lone Star Gas Company	Breckenridge	16"	47.231#	S. L.	29835	3-20-31	1,000'								
"	Ranger	16"	"	S. L.	30368	4-24-31	1,000'	E-54	May 1931	127.46	124.91	151.75	148.72	127.46	124.91
"	Ft. Worth	16"	"	S. L.								171.05	167.62	143.65	140.78
Lone Star Gas Company		18"	53.223#									190.50	186.69	160.00	156.80
Lone Star Gas Company		20"	59.231#												

Plain End—Seamless

* Plain End—Electric Weld—(Seamless)

Lone Star Gas Company	Burleson	16"	47.215#	D. L.	31822	8-14-31	18,400'	(H-1058)	Aug. 1931	146.32	143.39	164.83	161.53	144.47	141.58
"	Joshua	16"	"	D. L.	31822	8-14-31	18,400'	(H-956)	Aug. 1931	146.32	143.39				
Lone Star Gas Company		18"	53.223#									185.79	182.07	162.84	159.48
Lone Star Gas Company		20"	59.231#									206.73	202.60	181.20	177.58

* Inspected by R. W. Hunt & Co.—Voucher K-129, Oct. 1931.

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[fols. 1-8] IN COURT OF CIVIL APPEALS FOR THE THIRD SUPREME JUDICIAL DISTRICT, AT AUSTIN, TEXAS

No. 8238

THE STATE OF TEXAS et al., Appellants,

VS.

LONE STAR GAS COMPANY, Appellee

Appealed from the District Court of Travis County, Texas,
for the Fifty-Third Judicial District

BRIEF FOR APPELLEE

[fol. 9] DEFENDANT'S CROSS-ASSIGNMENTS OF ERROR

1

The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested. (Defendant's Cross Assignment of Error No. 14, Transcript 587.)

2

The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from the statement of the Railroad Commission of Texas attached to the opinion and order of the said Commission, marked Exhibit "A" and referred to in plaintiffs' Second Amended Original Petition, that defendant was engaged in the production and sale at wholesale of natural gas, engaging in both interstate and intrastate commerce in the sale of gas to some 300 cities and towns in the States of Oklahoma and Texas. The order [fol. 10] of the Railroad Commission undertook to fix a reasonable rate for all of the gas supplied by the defendant to the various distributing companies. A part of the gas being delivered by the defendant at the city gates of various towns and cities in Texas at the time of the investigation of

the Railroad Commission, and at all times in question was being transported uninterruptedly through defendant's high-pressure pipe lines from and through the State of Oklahoma into the State of Texas. The business of transporting natural gas uninterruptedly through defendant's high-pressure pipe lines from the State of Oklahoma into the State of Texas, and from the State of Texas through Oklahoma and back into the State of Texas is national in character and constitutes interstate commerce and transportation, and also constitutes a substantial portion of defendant's entire natural gas business. The order of the Railroad Commission was intended to and did, in fact, prescribe the rate to be charged for all gas sold by the defendant, including interstate gas, and thereby prevented the defendant from charging and receiving the price for interstate gas which it was charging and receiving, and, therefore, was a burden upon and a direct regulation of interstate commerce. The order of the Railroad Commission therefore was void insofar as it related to interstate commerce, and gas sold by the defendant moving in interstate commerce under the Commerce Clause of the Federal [fol. 11] Constitution, and, being void in part, and being indivisible in character, it was void in its entirety and could not be enforced in whole or in part by the plaintiffs in this suit.

Wherefore, defendant was entitled to an instructed verdict and judgment of the court entered thereon. (Defendant's Cross Assignment of Error No. 23, Transcript 595.)

3

The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from the undisputed evidence, as a matter of law, that the rate of 32 cents prescribed by the Commission in its order of September 13, 1933, was unjust, unreasonable, and confiscatory in this, that if said rate had been in effect during the year 1931, and subsequent accounting periods, defendant would not have earned and would not have been able to earn the minimum net rate of return to which the Railroad Commission found it was en-

titled, upon the fair value of its public service property as determined by the Commission.

Wherefore, defendant was entitled to an instructed verdict and to judgment based thereon. (Defendant's Cross Assignment of Error No. 15, Transcript 587.)

[fol. 12]

4

The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from the undisputed evidence, as a matter of law, that the rate of 32 cents prescribed by the Commission in its order of September 13, 1933, was unjust, unreasonable and confiscatory in this, that said rate was based on a determination of the value of defendant's public service property as of December 31, 1931, considering labor and material prices substantially less than those prevailing on the date of the inquiry; and even though it be assumed that the Railroad Commission correctly valued such property as of December 31, 1931, nevertheless, if effect be given to such increased labor and material prices, the Railroad Commission's valuation would be materially increased as of the date of the inquiry; and if said rate of 32 cents had been in effect during 1931, and subsequent accounting periods, defendant would not have earned and would not have been able to earn anything like the minimum net rate of return to which the Commission found it was entitled upon the fair value of its public service property at the time of the inquiry.

Wherefore, defendant was entitled to an instructed verdict and to judgment based thereon. (Defendant's Cross [fol. 13] Assignment of Error No. 16, Transcript 588.)

5

The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from the undisputed evidence, as a matter of law, that the rate of 32 cents prescribed by the Commission in its order of September 13, 1933, was unjust,

unreasonable and confiscatory in this, that if said rate had been in effect during 1931, and subsequent accounting periods, defendant would not have earned and would not have been able to earn anything like the fair net annual rate to which it was entitled in law, or the minimum net rate of return to which the Commission found it was entitled upon the fair value, at the time of the inquiry, of all of its public service property, wherever located.

Wherefore, defendant was entitled to an instructed verdict and to judgment based thereon. (Defendant's Cross Assignment of Error No. 17, Transcript 589.)

6

The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and [fols. 14-15] timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from plaintiffs' own testimony that the rate of 32 cents prescribed by the Commission in its order of September 13, 1933, was unjust, unreasonable and confiscatory in this, that even adopting plaintiffs' valuation of defendant's public service property located in Texas, and assuming that such valuation is of probative force and effect under the issues made in this case, nevertheless, if said rate had been in effect during 1933 and 1934, defendant would not have earned as much as the minimum net rate of return to which the Railroad Commission found it was entitled. Hence, on the basis of plaintiffs' own testimony, defendant was entitled to an instructed verdict and to judgment based thereon. (Defendant's Cross Assignment of Error No. 20, Transcript 591.)

• • • • • • • •

[fol. 16] IN COURT OF CIVIL APPEALS OF TEXAS
No. 8238

THE STATE OF TEXAS et al. Appellants,
vs.
LONE STAR GAS COMPANY, Appellee.

Appeal From District Court of Travis County

OPINION OF COURT—Filed July 10, 1935

Acting under the power conferred by Article 6050, et seq., R. S. 1925, and after a hearing which continued for more than seven months, the Railroad Commission of Texas promulgated its order requiring appellee Lone Star Gas Company to "charge, bill and receive for domestic gas at the city gate from all distributing companies served by it, a rate not to exceed \$0.32 per thousand cubic feet", in lieu of the \$0.40 rate theretofore charged. Immediately appellee filed a bill of complaint in the Federal District Court, seeking to restrain the enforcement of the rate order on several constitutional grounds, and particularly as being confiscatory of its property. Thereafter, the Commission, Attorney General, and others, herein called Commission, instituted this proceeding in the District Court of Travis County, Texas, in order to bring appellee within the jurisdiction of the state court under the provisions of Sec. 266 of the Judicial Code of the United States (28 U. S. C. A., Sec. 380). The Commission asserted the validity of the order in every particular, and sought to restrain appellee from violating it. In conformity with what was regarded as proper procedure under Sec. 266 of the Judicial [fol. 17] Code, both the state and the federal courts temporarily restrained the enforcement of the rate order, and later the federal court ordered all proceedings therein stayed until the final disposition of this cause. Appellee's answer herein, seeking to set aside the rate and restrain its enforcement, was in effect an appeal by it under Article 6059,

which provides that any gas utility dissatisfied with any rate may petition a court of competent jurisdiction in Travis County and have same set aside, upon showing by "clear and satisfactory evidence that such rate is unreasonable and unjust as to it." Appellee alledged that the rate order was violative of the commerce, the due process, the equal protection, and the freedom of contract clauses of the Federal Constitution; and was confiscatory and unreasonable and unjust, because it would not afford a reasonable return on the fair value of its property used in the public service. In reply, the Commission asserted the validity of the order in every particular, denied that any gas moved in interstate commerce; but that if so, it was negligible in amount and was not affected by the rate; and that in absence of legislation by Congress on the subject, the Commission had the authority under the statutes and in the exercise of the police power of the state to regulate and control public gas utilities, and to fix reasonable rates for gas sold and delivered to its citizens, even though interstate commerce was indirectly or incidentally affected thereby.

The trial court concluded the commerce and all constitutional questions against appellee; but the jury found in answer to the one special issue submitted, that "the order [fol. 18] for a rate not to exceed 32 cents per thousand cubic feet of gas sold to the distributing companies at the gates of the points served, is unreasonable and unjust as to the Lone Star Gas Company". Judgment was accordingly rendered setting aside the 32-cent rate order, and perpetually restraining its enforcement.

The special issue submitted, with the definition and instructions given in connection therewith, was in the nature of a general charge, and required the jury to determine all questions of law and fact of the entire case. Under the pleadings of appellee the ultimate question of fact was whether the 32¢ rate would yield a reasonable return on the fair value of the property used in the public service of delivering and selling natural gas to the distributing companies at the city gates of the various Texas cities and towns. Appellee attempted to prove that the 32¢ rate would not yield a reasonable return, for two reasons, as follows:

1. Because the 32¢ rate would not yield the minimum return of 6% declared to be reasonable by the Commission; and

2. Because if so, a return of 6% was so low as to be confiscatory and unreasonable and unjust.

The burden was heavily upon appellee to show by clear and satisfactory evidence that the 32¢ rate would not afford a reasonable rate of return on the property used in the Texas public service. Appellee did not meet this burden and quantum of proof; and the trial court erred in overruling the Commission's motions for an instructed verdict and for judgment declaring the rate to be valid. In view of this conclusion, the appeal presents two main divisions, as follows:

[fol. 19] 1. Three constitutional objections are urged against the 32¢ rate order, as follows:

- (a) Interference with interstate commerce.
- (b) Interference with the right to contract.
- (c) Confiscation of property.

2. The legal sufficiency of the evidence adduced by appellee to show that the rate order was confiscatory or unreasonable and unjust as to it.

The Texas statutes, particularly Articles 6050, 6051 and 6053, classify the various kinds of business engaged in producing, transporting, delivering and selling natural gas to the public for domestic or other use, and declare each to be a public gas utility, affected with the public interest and subject to the regulation and control of the Commission. Gas pipe lines engaged in producing, buying, transporting, delivering, or otherwise dealing in natural gas are each declared to be a public utility, affected with the public interest, and in nature and according to the established method of conducting same a monopoly, and subject in respect to all their holdings pertaining to the Gas business and in all relations to the public, and in respect to their producing, transporting, receiving and distributing facilities, to the full and complete control and supervision of the Commission. Authority is also given the Commission to fix, establish and enforce a reasonable rate which pipe line may charge for gas delivered at the city gate to another distributing company or municipality; to fix a reasonable rate for gas sold and delivered by pipe lines or other distributing companies to the public for domestic or other use; [fol. 20] and to fix and establish a fair and equitable divi-

sion of the proceeds of the sale of natural gas between the producing or transporting companies and the companies distributing or selling it to the ultimate consumer. In the exercise of the power so conferred, the Commission is authorized to act upon its own motion, or upon the petition of any person, corporation, municipality, etc., showing a substantial interest in the subject.

Accordingly the Commission of its own motion, ordered a hearing to investigate the 40¢ city gate rate which appellee uniformly charged the various distributing companies throughout the State for gas. Appellee and each of the approximately 270 cities and towns served by it were given notice of the hearing, after which the Commission made its order fixing the 32¢ gate rate, found to be "fair, just and reasonable", in lieu of the 40¢ rate theretofore charged, found to be "unfair, unjust and unreasonable."

Interstate Commerce Issue

Appellee obtains its natural gas from two states, which under its system of accounting is allocated to three sources. The first source is gas produced or purchased in Texas and transported and delivered entirely within Texas. As to this gas, appellee admits the authority of the Commission to regulate and fix the price for which it shall be sold at the city gates to the affiliated distributing companies in a proper proceedings; but contends that since the rate order in question also attempts to fix the price of gas transported in interstate commerce, the order is invalid in [fol. 21] toto because invalid in part. From this source appellee accounts for about 79% of its total gas supply.

The second source of gas is produced or purchased by appellee in Oklahoma, and transported through its pipe lines from points of production into Texas. All of this gas is processed and treated in gasoline plants located near Gainesville, Texas, and Petrolia, Texas. At these plants the heating value of this gas is lowered by extracting the gasoline therefrom, and practically all of it is recompressed. When this gas leaves Oklahoma for Texas its exact ultimate destination is not known, and a considerable amount of it is run through and stored in wells at the extraction plants in Texas for future use as needed. Each pipe line transporting this gas has a meter at the State line, for the purpose of measuring the amount thereof. From

this source, over the 1927-1933 period considered, appellee accounts for about 4% of its total gas supply. However, the amount of this gas has shown a marked decline until during the last year of the accounting period it amounted to about one-half of 1% of appellee's total gas supply. All of this gas is commingled in storage or pipe lines with appellee's Texas gas before delivery at the city gates. Appellee contends that this gas moved in interstate commerce to the city gates, and is, therefore, not subject to the jurisdiction of the Commission.

The third source of gas is produced or purchased in the Panhandle field in Wheeler county, Texas, and transported by appellee's private pipe line through a corner of Oklahoma (less the amount of deliveries at Hollis, Oklahoma) [fol. 22] and back into Texas, uninterruptedly. The Commission alleged and indisputably proved that this pipe line was built through a sparsely settled, rough, rocky region, just within and paralleling the boundary line of Oklahoma, for about 40 miles, recrossing the Texas line at a point on the Prairie-Dog Town Fork of Red River, where an exceedingly expensive crossing was necessary, which would not have been necessary if the pipe line had been constructed by a more direct route within Texas; and that as compared to the Oklahoma route, the Texas route would have been much less expensive, through sandy and less corrosive soil, more direct, and through a more populous region. The Commission contends that the construction of this pipe line was, therefore, fraudulently done for the purpose of attempting to deprive it of jurisdiction over appellee. From this source of gas appellee accounts for about 17% of the total supply subject to the rate order in question.

The gas reserve of appellee in Oklahoma as compared to those in Texas amounted to about one-fourth of one percent. The gas reserves in Texas are more than sufficient to supply all Texas needs, and the gas supply of Oklahoma will likewise supply all its needs. The Texas gas used in Oklahoma and the Oklahoma gas used in Texas about strike a balance, and in any event, if the excess should be in favor of Oklahoma, it is negligible. Texas gas is less expensive to produce than Oklahoma gas. Approximately 85% of appellee's property is situated in Texas; and approximately 99% of its gas reserves are in Texas. Gas

coming from Oklahoma is so mixed and commingled with [fol. 23] Texas gas that it cannot be definitely traced by volume to any particular city gate, because it is divided and redivided into the network of appellee's pipe lines, in amounts which are negligible in comparison with the amount of the Texas gas. Oklahoma produced gas is not served south of Fort Worth or Dallas, nor west of Fort Worth. A very small amount of Oklahoma gas is delivered to independent distributors at Gainesville and Waxahachie. The order does not in any manner interfere with the sale of the Oklahoma gas at the same rate as the Texas gas.

In view of these facts, appellee contends that the order was an attempt to regulate and burden interstate commerce, because a part of the gas affected by the 32¢ rate is produced or purchased in the State of Texas, and transported by the pipe lines of appellee through a corner of the State of Oklahoma and back into Texas, where it is sold and delivered wholesale at the gates of the various Texas cities and towns; and because a part of the gas is produced or purchased in the State of Oklahoma and transported by the pipe lines of appellee uninterruptedly and at high pressure into Texas, where it is sold wholesale at the city gates.

As preliminary and as bearing upon the issues of interstate commerce, the interference with the right to contract, operating expenses, and other issues relating to the jurisdiction of the Commission to regulate and control appellee, it was the theory of the Commission that by reason of an intercorporate setup and affiliation between appellee and the distributing companies to which it delivered gas at the [fol. 24] city gates, an integrated but single business enterprise was established in which appellee and the distributing companies were merely the departments or instrumentalities through which the single business enterprise sold and delivered natural gas to the ultimate consumer or burner tip user. The Commission asserted that the fixing of the gas rate at the city gate under such business setup effectually fixed the rate from the city gate to the burner tip, which was intrastate commerce and subject to the control and regulation of the Commission. It was alleged that the unity or oneness of the business enterprise was accomplished by the combination of property and effort, and through a holding corporation, the Lone Star Gas Corporation, a Delaware chartered corporation, with its principal offices in Pitts-

burgh, Pennsylvania. The facts sustaining this allegation are as follows:

Appellee, Lone Star Gas Company, is in corporate theory a Texas gas pipe line corporation, classified by Article 6050 as a "public utility", and "declared to be affected with a public interest and subject to the jurisdiction, control and regulation of the Commission." By Article 6051, appellee's business is declared to be "a business which in its nature and according to the established method of conducting the business is a monopoly and shall not be conducted unless . . . such business be subject to the jurisdiction herein conferred upon the Commission." In excess of 99% of appellee's common, voting or controlling stock is owned by the Lone Star Gas Corporation, the Delaware chartered corporation, which does not have a permit to do business in Texas.

The affiliated distributing companies material to this [fol. 25] case are the Community Natural Gas Company, County Gas Company, Dallas Gas Company, Municipal Gas Company, and Texas Cities Gas Company. Each of these companies is a Texas Corporation, and in corporate theory and as classified by Article 6050, each is a "public utility", engaged "in distributing or selling natural gas to the public for domestic or other use," serving one or more of some 270 cities and towns in Texas. The Delaware holding corporation owns in excess of 99% of the common or voting stock of the affiliated Community Gas Company, County Gas Company, Municipal Gas Company, Texas Cities Gas Company, and, through a sub-holding corporation, the Dallas Gas Company.

Appellee and all of its affiliated distributing companies have connected offices in Dallas, Texas, and all of these Texas corporations and the Delaware holding corporation have officers and directors common to each corporation, although there is not a majority by number in any instance. Voting by proxy or as attorney in fact is practiced by the interlocking directors and officials of all corporations involved in the intercorporate setup. All Texas corporations confer with and are subject to the management of the Lone Star Gas Corporation, the holding corporation. For these services it exacts a "management fee" of one per cent of the gross annual revenue of appellee, and a "management fee" is also exacted by the holding corporation from each

affiliated distributing company. The holding corporation has loaned appellee \$17,600,000 on its unsecured note; and loans have been made to each affiliated distributing company either on open account or on unsecured notes. In [fol. 26] interest at six per cent, is charged on the \$17,600,000 indebtedness of appellee, although the holding corporation borrowed the money at five per cent, and a similar condition exists as to the affiliated distributing companies, notwithstanding some of them are able to borrow large sums from local banks at from four to four and one-half per cent interest.

All books of all corporations, except the holding corporation, are kept in the offices at Dallas, Texas, and a general or supervising auditor has authority and direction over all books. Accounting services, engineering, financing, purchasing and operating supervision are furnished all Texas corporations by the Delaware holding corporation, and a general counsel represents all the corporations involved in the intercorporate setup.

In its department of the integrated business enterprise, appellee is engaged in producing and purchasing natural gas and in transporting same by its 4000-mile pipe line system from the point of production to the city gates of some 270 cities and towns in Texas, where the gas is delivered to one and the other affiliated distributing companies. A uniform rate of 40¢ at the city gate is made by appellee, which rate it filed with the Commission, and has charged and collected for several years. Appellee has long-term contracts with its affiliated distributing companies for the 40¢ city gate rate.

In their department of the integrated business enterprise, the affiliated distributing companies are engaged in selling and delivering the gas to the burner tips of the consumers, and for which service they charge a fixed rate.

[fol. 27] Appellee also furnishes gas at the city gates of Waxahachie and Gainesville, Texas, to two independent distributing companies,—the Waxahachie Gas Company and the Gainesville Gas and Electrical Company; and in Waxahachie, a small amount to its affiliated Municipal Gas Company. The amount of this gas is negligible, in comparison with appellee's total gas business. Each independent distributing company pays the 40¢ city gate rate under long-term contracts with appellee.

The cases are legion which deal with the relationship of two or more corporations from the standpoint of ownership of the capital stock in one by another, and from the standpoint of association together for the purpose of carrying on a single or common business enterprise. The rule is well settled that courts will look through the forms to the realities of the relationship between two or more corporations in order to determine whether each is a separate entity or corporation; or whether their commingled affairs are such as to constitute them one integrated and single business enterprise; or whether through intercorporate setup, affiliation or stock ownership, the purpose is to control the subsidiary corporation or corporations so that they are used as the mere instrumentalities or agents of the owning corporation or corporations. In discussing the rule, it has been held that while "ownership alone of capital stock in one corporation by another does not create an identity of corporate interest * * * or create the relation of principal and agent or representative between the two;" still it has been repeatedly held that such rule is not applicable "where stock ownership has been [fol. 28] resorted to, not for the purpose of participating in the affairs of a corporation in the normal and usual manner, but for the purpose * * * of controlling a subsidiary company so that it may be used as a mere agency or instrumentality of the owning company or companies." *Chicago Ry. v. Minn. Civic Ass'n*, 247 U. S., 490, 62 L. Ed. 1229; *United States vs. Lehigh Valley R. R. Co.*, 220 U. S. 257, 55 L. Ed., 458; *United States v. Reading Co.*, 253 U. S., 26, 64 L. Ed., 760; *United States v. Delaware L. & W. R. Co.*, 238 U. S. 516; 59 L. Ed., 1438. Also in discussing the rule the fact that the same persons are directors and managers of two corporations has been given consideration (*McCaskill Co. v. United States*, 216 U. S., 504) and "a growing tendency is therefore exhibited in the courts to look beyond the corporate form to the purpose of it and to the officers who are identified with that purpose." See also *Gallatin Gas Co. v. Public Service Co.*, 256 Pac., 373. Where one corporation owns or dominates another it has been often held that "the independent entity of the two companies is so far disregarded that each is considered a part of the invisible whole." *Kimberly Coal Co. v. Douglas*, 45 Fed. (2d) 25; *In re Kentucky Wagon Mfg. Co.*, 3 F. S. 958; *Law v. McLaughlin*, 2 F. S., 601. And "the rule which appears to be established by these cases is that,

where the corporate organization and affairs of one railroad company are controlled and dominated by another railroad company through ownership of stock or lease, the roads must be regarded as identical for the purpose of rate making." Pontiac Ry. Co. v. R. R. Com., 168 N. W., 927.

[fol. 29] A somewhat analogous question was decided by this court in A. T. & S. F. Ry. Co. v. R. R. Com., 77 S. W. (2d), 773, (writ refused), wherein it was held that subsidiary corporations, owned, controlled and operated by railroads to carry on pickup and delivery service, did not possess separate legal individuality from the parent corporations, as regards the jurisdiction of the Railroad Commission; and wherein it was held as follows:

"To permit railroads to perform such steps in the process of transportation through other separate legal entities created and owned by them would enable them to defeat the jurisdiction of the Commission over such transportation. And in such case where the stock of such separate corporation is owned by the railroad company, and its sole function is merely to help conduct the business of the parent corporation under whose complete control it operates, and in the instant case largely, if not wholly, through the same employees, the subsidiary corporation will be treated as if it were a mere department of the railroad itself."

When viewed in the light of the facts and the aforesaid rule, it becomes apparent that appellee and its affiliated distributing companies were engaged in an integrated but single business enterprise of producing, purchasing, transporting, delivering and selling natural gas for domestic or other use to the ultimate consumer. This was accomplished by combination of property and effort, and through ownership of more than 99% of the capital stock of appellee and all affiliated distributing companies by the holding corporation. All corporations are under the common management of the holding corporation, for which service it is paid management fees. The Texas corporations and the holding corporation have officers and directors common to each, who actually [fol. 30] manage, supervise and control the entire business enterprise through the intercorporate setup. By permitting or organizing such intercorporate setup, the Texas corporations have, considering their entire operations as a whole,

created a single and integrated business enterprise, and with respect to the jurisdiction of the Commission, to regulate and control such business, and particularly for the purpose of fixing the rates for which it might sell gas to the public in Texas, the corporation must be regarded as being engaged in the single business enterprise of producing, purchasing, transporting, delivering, and selling natural gas to the ultimate consumer or user in Texas. The fact that separate corporate entities were formed which represent different departments of the integrated but single business enterprise, does not affect the question, because the court must look beyond the corporate form to the purpose of the unified organization, and to the officials who are identified with that purpose. To otherwise hold, and to permit the Texas Corporations to so dispose of their capital stock and to so form a separate entity of their own, and to surrender the management and control of their business to the holding corporation, which has no permit to do business in Texas, would enable them to defeat the jurisdiction of the Commission over them as Texas public utilities, for which purpose the State of Texas granted them life and the privilege of doing business.

The fact that appellee and the affiliated distributing companies may be engaged in the integrated but single business enterprise of producing, purchasing, transporting and selling [fol. 31] ing natural gas to the ultimate consumer or burner tip user, is not of controlling importance on the commerce issue; because the Commission did not fix the burner tip rate, nor did it require the distributing companies to pay appellee not in excess of the 32¢ city gate rate, and to pass the 8¢ reduction on to the ultimate consumer or burner tip user.

Just why the Commission fixed the 32¢ city gate rate for gas without also requiring the distributing companies to pay not in excess of such rate, and to pass the 8¢ reduction on to the ultimate consumer or burner tip user, is not clear from the order or record. It is conceded that the business of distributing gas from the city gate to the burner tip user was intrastate commerce over which the Commission had jurisdiction; and that it could have, after a hearing at which the reasonableness of the City gate rate charged by appellee for gas was inquired into, required the various distributing com-

panies to pay appellee at each city gate a rate not in excess of the 32¢ rate, even though the gas sold and delivered by appellee moved in interstate commerce to the city gate. Article 1119, R. S. 1925, authorizes cities and towns of over 2000 population to fix local rates for gas sold by a public utility. *Texas-Louisiana Power Co. v. City of Farmersville* (Com. App.), 67 S. W. (2d), 235. The Commission is authorized to originate rates for cities and towns of less than 2000 population; and Article 6053 authorizes it to fix city gate and other rates for natural gas for all cities and towns without regard to population. The order recited that there were then pending some 125 appeals from rates fixed by cities [fol. 32] and towns under the provisions of Articles 1119 and 6058, and that there were also pending before the Commission numerous cases in which the rates to be reviewed or fixed necessarily involved the determination of the reasonableness of the city gate rate charged the distributing companies by appellee, as a step preliminary to the disposition of such appeals and cases, and in order to determine or fix reasonable local or burner tip rates therein. All of these cities and towns were given notice of the hearing before the Commission. It would seem from these recitations of facts and circumstances, that the Commission consolidated all the appeals and cases pending before it in which the determination of the city gate rate charged by appellee for gas was necessarily involved as a step preliminary to reviewing or fixing the local or burner tip rates for gas. The wisdom of the method of procedure adopted cannot be successfully attacked. A separate hearing in the case of each city or town would have presented an insurmountable task; and if the expenses of this hearing are a criterion, no city or town could bear such expense. Separate hearings would not afford appellee any relief to which it is not entitled to receive here. Nor is it "essential that the Commission dispose of the matter pending before it in a single order, but that it may in a proper case make a preliminary disposition of the matter, and reserve for further consideration, and dispose of by subsequent order, other questions or issues involved in the main issue without further notice or hearing." *Houston Chamber of Commerce v. R. R. Com.*, 19 S. W. (2d), 586, affirmed 78 S. W. (2d), 591; *Magnolia Pet. Co. v. Edgar*, 62 S. W. (2d), 359, (writ ref.). Moreover, all parties have by court pro-[fol. 33] ceedings and otherwise treated the order as a final

order fixing the 32¢ city gate rate. Certainly appellee has so treated the order, and if declared valid herein, appellee has no further interest in any order the Commission may make with regard to requiring the various distributing companies to pay not in excess of the 32¢ city gate rate, and to pass the 8¢ reduction on to the ultimate consumer or burner tip user. Furthermore, in its department of the intercorporate setup and affiliation appellee was a gas pipe line utility, engaged in the integrated business of producing, purchasing, transporting by pipe line, and selling natural gas to the distributing companies at the city gates of some 300 cities and towns in Texas and Oklahoma. Appellee's charter and the books kept under the direction of the auditor of the intercorporate business setup established that it was so engaged. On the hearing before the Commission, all parties proceeded upon the theory that appellee was so engaged. It had contracts with the affiliated as well as the two independent distributing companies for the 40¢ city gate rate uniformly charged throughout the State of Texas by appellee. The Texas statutes authorize the Commission to fix reasonable city gate as well as local or burner tip rates for gas, and appellee states in its brief that "the Railroad Commission of Texas has power and authority to fix and prescribe the charges which defendant may make for gas produced or purchased by it and moving throughout its entire transit, up to the point of delivery at the city gates, wholly within the State of Texas, subject to defendant's rights under the 14th Amendment of the Constitution of the United States, and the Bill of Rights [fol. 34] of the Texas Constitution; and it has power and authority to determine the rates and charges to be received for the sale of gas to domestic customers in towns and cities in Texas (i. e. local rates), even though a part of the gas so sold has moved continuously in interstate commerce from the points of origin to the points of delivery at the city gates, subject to a similar qualification. But it may not regulate the gate rate to be charged by defendant for the sale of interstate gas." In view of these facts, admissions and proceedings, we will consider the rate order in question as a final appealable order, and pass to a further consideration of the interstate commerce issue.

Whether the conduct of appellee, in constructing and transporting by its private pipe line gas from the Texas Panhandle field through Oklahoma and back into Texas, where

it is intended at all times to be delivered, sold and used, constitutes a fraudulent attempt to make such gas move in interstate commerce, and thereby deprive the Commission of the power to regulate the price for which it may be sold, does not appear to be material, because such transportation of the gas is not interstate commerce as a matter of fact. Except for the right to authorize the construction of the pipe line within its boundary, the State of Oklahoma has no concern whatever with the transaction. Only one town, Hollis, in Oklahoma, is served by the pipe line. It could have been as well served by a direct pipe line from Texas to it, and such service is in no manner affected by the rate order in suit. The mere fact that such town is served with gas delivered from [fol. 35] the pipe line does not stop, hinder, affect, or in any manner interrupt or interfere with the continuous flow of the gas from Texas through Oklahoma and back into Texas, where it is intended at all times to be delivered, sold and used.

In 1 Supreme Court Law, 347, the following rule is stated:

"Interstate commerce is a practical conception drawn from the course of business upon a broad consideration of the substance of the whole transaction. Substance, and not form controls. The actual fact, not technical considerations, governs."

The text cites many cases supporting the rule, holding in substance that what is or is not interstate commerce is to be determined upon broad consideration of the substance of the whole transaction. See *Federal Trade Com. v. Pacific, etc. Ass'n.*, 273 U. S., 52, 71 L. Ed. 534; *Eureka Pipeline Co. v. Hallahan*, 257 U. S., 265, 66 L. Ed., 227; *R. R. Co. v. United States*, 196 U. S., 398; 28 L. R. A. (N. S.) 264.

Cases cited by appellee and many others hold that gas produced in one state and transported by pipe line to another state for sale and use is interstate commerce. 1 Supreme Court Law, 367. But no case is cited and none is found by us which would support a holding that the transportation by its private pipe line of gas produced or purchased by appellee in Texas through a corner of Oklahoma and back into Texas, uninterrupted, and with the intention at all times that such gas would be delivered, sold and used in Texas, is interstate commerce. Appellee is a Texas public gas utility corporation. Its primary duty is to serve Texas citizens with gas

[fol. 36] produced from Texas soil. Its corporate life and being was granted in consideration of these premises. With this in view, but one practical conception can be drawn from the whole transaction involved, that is, the gas produced in Texas and intended to be delivered, sold and used in Texas is intrastate commerce. The mere fact that appellee has selected a route through Oklahoma as an aid to the transaction of its Texas business can not work a change in the nature of the business, nor does it affect the character of the business. The transportation of gas through Oklahoma is merely a method of delivery and is a negligible circumstance in determining the interstate commerce issue. *Heyman v. Hays*, 236 U. S., 178, 59 L. Ed., 527.

If, however, the delivery of the gas by appellee from Texas through Oklahoma and back into Texas, intended at all times for Texas consumption, be regarded as interstate commerce, such transaction only affects transportation of the gas and as to which only appellee and the Texas consumers are interested. The Interstate Commerce Act, as now amended, expressly excepts from the jurisdiction of the Interstate Commerce Commission the regulation of interstate transportation of "natural or artificial gas by pipe line, or partly by pipe line and partly by railroad or by water." 28 U. S. C. A., Title 49, Chap. 1, Sec. 1, Subdiv. (b). And since the regulation of the transportation of gas is expressly excluded from the scope of the interstate Commerce statute, it is within the police power of the state to fix reasonable rates for which gas may be sold to its citizens, even though such rates may indirectly or incidentally affect the interstate [fol. 37] transportation of such gas, or may so affect interstate commerce in the same. *Simpson v. Shepard*, 230 U. S., 352, 57 L. Ed., 1511, 48 L. R. A. (N. S.) 1151. *West v. Kansas Gas Co.*, 221 U. S., 229, 55 L. Ed., 716, 35 L. R. A. (N. S.), 1193; *Pennsylvania Gas Co. v. Public Service Com.*, 252 U. S., 23, 64 L. Ed., 434; *Manufacturers Light & Heat Co. v. Ott*, 215 Fed., 944.

Neither the Texas statutes nor the rate order interfere in any manner with the transportation of gas from Texas through Oklahoma and back into Texas. The order only attempts to regulate and fix the price for which such gas may be sold in Texas by appellee to its various distributing companies. Manifestly, this circuitous route of delivery of gas through Oklahoma can not and does not affect the

exercise of the police power of Texas to make or fix reasonable rates for such gas sold to its citizens.

Appellee contends, however, that there can be no question but that the gas produced or purchased by it in Oklahoma and transported to and sold in Texas, is gas moving in interstate commerce up to the time it reaches the city gates of delivery; and that the fact that the amount of this gas is small does not affect its interstate commerce character, nor its interstate transportation. We do not sustain the contention.

The facts show that the gas produced or purchased by appellee in Oklahoma and transported by its pipe lines to Texas, does not move in interstate commerce, when it reaches the city gates of delivery. All gas coming from Oklahoma is run through extraction plants in Texas, where the heavier hydro-carbons and volatile gasoline are extracted, leaving the residue gas changed in its composition, and with its [fol. 38] heating value lowered and changed. Large amounts of it are run through and stored in wells on the Miller farm near the extraction plant in Texas, continuously, and for use later as needed. The Oklahoma gas has no particular Texas city gate destination; but it is first transported to the extraction plants, and after its composition is changed, it is passed into the pipe line system of appellee, mixed and commingled with Texas gas, divided and redivided in the pipe line system until it is impossible to trace or identify it by volume at any city gate of delivery. At various points before delivery its pressure is reduced and the gas allowed to expand. The amount of Oklahoma gas as a whole is small and as divided and redivided before delivery to the various city gates, its amount is negligible in comparison with the amount of the Texas gas with which it is mixed or commingled.

Doubt has been expressed by several courts as to whether gas produced in several states and commingled in pipe lines from which it is sold, is interstate commerce. This conclusion seems to have been reached on the "original package" doctrine, the courts holding that after the bulk of the imported gas is broken up for indiscriminate distribution to individual purchasers at retail sale, the interstate commerce is at an end. Contrary conclusions seem to have been reached where merely transmission for immediate or practically immediate use, direct from the seller to the consumer,

is involved. But a different question arises where the gas transmitted from one state is stored and then distributed as its needs might afterwards develop; and where, as in this [fol. 39] case, the composition of the gas is and must be changed by extracting hydro-carbons and volatile gasoline before it is ready for delivery and use by the consumer. As to such transmission of gas, the "original package" theory or doctrine is applicable and should be invoked, even though the transporting company, as did appellee and the affiliated distributing companies through stock ownership and intercorporate setup, actually sells the Oklahoma produced gas as changed to the ultimate consumers in Texas. These questions have been either passed upon or anticipated and discussed in the following cases. *Pennsylvania Gas Co. v. Public Service Com.*, 252 U. S., 23, 64 L. Ed., 434, 225 N. Y. 399, 122 N. E., 260; *West v. Kansas Natural Gas Co.*, 221 U. S. 229, 55 L. Ed., 716, 35 L. R. A. (N. S.) 1193; *Public Utilities Com. v. Landon*, 249 U. S., 236, 590, 63 L. Ed., 577, 791; *State v. Flannelly*, 96 Kansas, 372, 152 Pac., 22; *West Virginia, etc. Co. v. Towers (Md.)*, 106 Atl. 265.

In other cases it has been held that in the exercise of the police power of the state, the state commission has authority to fix the local burner tip rates, even though the gas moved in interstate commerce to the city gate, and particularly so where, as in the instant case, an affiliation exists between the transporting and the distributing companies. Thus the state commission may validly, by the indirect process of prescribing reasonable rates for local distributing companies, control and fix the city gate rate for gas moved in interstate commerce.

The Commission did not expressly require the distributing companies to pay not in excess of the 32¢ city gate rate, [fol. 40] but since this hearing was necessary as a preliminary step to the disposition of the appeals and cases pending, it was not essential that the Commission dispose of the matter before it in a single order; but it may, if the rate herein complained of be held not confiscatory or unreasonable and unjust, subsequently make its order requiring the distributing companies to pay not in excess of such rate, without further notice or hearing. *Houston Chamber of Commerce v. R. R. Com.*, *supra*. Manifestly, if the 32¢ rate is declared valid herein, appellee can have no further in-

terest in any order the Commission may make with regard to requiring the various distributing companies to pay not in excess of such rate, and to pass the 8¢ reduction on to the ultimate consumer. *Missouri v. Kansas Gas Co.*, 265 U. S. 298; *Public Utilities Com. v. Landon*, *supra*; *East Ohio Gas Co. v. Tax Com.*, 283 U. S., 465; *Pennsylvania Gas Co. v. Public Service Com.*, *supra*; *State Cor. Com. v. Wichita Gas Co.*, 290 U. S., 561, 78 L. Ed. 500; *Dayton P. & L. Co. v. Public Utilities Com.*, 292 U. S. 290, 78 L. Ed., 1267; *Gallatin Gas Co. v. Public Service Com.*, 256 Pac., 373.

Final decision, however, in most cases is rested upon the principle that the State may regulate interstate commerce of the character of natural gas in the absence of action by Congress. As hereinabove stated, the Interstate Commerce Act expressly excludes from the scope of the interstate commerce statute the transportation of natural gas. The amount of the rate or price to be charged for gas is primarily for the determination of the state in which the gas [fol. 41] is consumed, and it is within the police power of the state to make or fix reasonable rates for gas furnished by a public utility to its citizens. Where the rates are reasonable and are fixed according to some uniform, fair and practical standard, they constitute no burden on interstate commerce. So, if the delivery of the gas by appellee from Texas through Oklahoma and back into Texas, intended at all times for Texas consumption; and if the production and transportation of the small amount of gas from Oklahoma to Texas, where it is sold, be regarded as interstate commerce, still appellee's business is predominantly a Texas business; and it is within the police power of the state to fix reasonable rates for which gas may be sold to its citizens, even though such rates may indirectly or incidentally affect the interstate transportation of such gas, or may so affect interstate commerce in the same. *Simpson v. Shepard*, 230 U. S., 352, 57 L. Ed., 1511, 48 L. R. A. (N. S.), 1151, wherein it is held as follows:

"Where the subject is peculiarly one of local concern, and from its nature belongs to the class with which the state appropriately deals in making reasonable provision for local needs, it cannot be regarded as left to the unrestrained will of individuals because Congress has not acted, although it may have such a relation to interstate commerce as to be within the reach of the federal power."

This doctrine has been carefully restated in the recent case of *Schechter Poultry Cor. v. United States*, 55 S. Ct. Rep., 850, as follows:

"But where the effect of intrastate transactions upon interstate commerce is merely indirect, such transactions remain within the domain of state power. If the commerce clause were construed to reach all enterprises and transactions which could be said to have an indirect effect upon interstate commerce, the federal authority would embrace [fol. 42] practically all the activities of the people; and the authority of the state over its domestic concerns would exist only by sufferance of the federal government. Indeed, on such a theory, even the development of the state's commercial facilities would be subject to federal control. As we said in *Simpson v. Shepard* (Minnesota Rate Case), 230 U. S. 352, 410, 33 S. Ct. 729, 745, 57 L. Ed. 1511, 48 L. R. A. (N. S.) 1151, Ann. Cas. 1916 A, 18: 'In the intimacy of commercial relations, much that is done in the superintendence of local matters may have an indirect bearing upon interstate commerce. The development of local resources and the extension of local facilities may have a very important effect upon communities less favored, and to an appreciable degree alter the course of trade. The freedom of local trade may stimulate interstate commerce, while restrictive measures within the police power of the state, enacted exclusively with respect to internal business, as distinguished from interstate traffic, may in their reflex or indirect influence diminish the latter and reduce the volume of articles transported into or out of the state.' See, also, *Kidd v. Pearson*, 128 U. S. 1, 21, (9 S. Ct. 6, 32 L. Ed. 346; *Heisler v. Thomas Colliery Co.*, 260 U. S. 245, 259, 260, 43 S. Ct. 83, 67 L. Ed. 237."

It has also been held that, "if it be assumed that interstate commerce will be incidentally affected, yet the regulation of the local charges of the Natural Gas Company as a public service corporation is within the police power of the state until Congress sees fit to act." *Manufacturers Light & Heat Co. v. Ott*, supra. And certainly the state's regulatory power is not denied where it does not interfere with or burden the free interstate flow of gas. *Peoples Natural Gas Co. v. Public Service Com.*, 270 U. S., 550, 70 L. Ed., 726. The rate order in this suit does not in any manner

interfere, restrain or burden the free transportation of gas between Texas and Oklahoma. Oklahoma gas may be freely transported to Texas and sold in the open market at the same reasonable rate fixed for Texas gas. We therefore, conclude that, absent legislation by Congress, and since [fol. 43] the Interstate Commerce Act as now amended, expressly excepted the regulation of transportation of "natural or artificial gas by pipe lines" from the jurisdiction of the Interstate Commerce Commission, the State Commission, in the exercise of the police power of the State to regulate and control public gas utilities, had the power to fix reasonable rates for gas delivered by appellee to distributing companies at the city gate, although interstate commerce may be indirectly or incidentally affected thereby.

We further conclude that since the amount of gas produced or purchased by Appellee in Oklahoma and transported to and sold in Texas, is negligible; and, if interstate commerce, the 32¢ rate fixed by the Commission in no manner interfered with, impeded, or burdened the flow of gas from Oklahoma, but such gas may be sold in competition with Texas gas and at the same reasonable price fixed by the Commission.

Freedom of Contract Issue

The contracts of appellee with the distributing companies for the 40¢ city gate rate were made in the light of the Constitution and laws, and of the jurisdiction of the Commission to regulate such rates. The order changing such rate is therefore not violative of the freedom of contract, or impairment of obligation clauses of either the State or Federal Constitutions.

The right of the State to regulate the rates and practices of a public utility is referable to the police power of the State, and is a legislative function which cannot be alienated or contracted away by the State or any agency or political [fol. 44] subdivision of the State. The Constitution and laws of a state are a part and parcel of the terms of A corporate franchise, and the right of the state in the exercise of its police power to change franchise or contract rates in the protection of the inalienable rights and general welfare of its citizens is settled. *Nunn v. Illinois*, 94 U. S. 113; *Milwaukee Electric Ry., etc. Co. v. R. R. Com.*, 153 Wis. 592, affirmed in 238 U. S. 174; the *State v. Public Serv. Com.*, 275 Mo., 201. The one exception to the rule is with regard

to ordinances or contracts fixing rates for a limited period of time. *Southern Iowa Electric Co. v. Chariton*, 255 U. S. 539. Appellee's contracts are all for long periods of time, and do not come within the exception. And where, as in the instant case, there is an intimate alliance between the buyer and seller, and they are not dealing at arm's length because of intercorporate affiliation and transactions, the prices they fix are of no concern to the public, unless they are not within the bounds of reason. *Houston v. Swr. Bell Tel. Co.*, 259 U. S. 318, 323; *Missouri ex. rel Swr. Bell Tel. Co. v. Public Service Com.*, 262 U. S. 276, 288; *United Fuel Gas Co. v. Railroad Com. of Kentucky*, 278 U. S. 300, 320, 49 S. Ct. 150, 156, 73 L. Ed. 390, citing and quoting from *Chicago Grand Trunk Railway v. Wellman*, 143 U. S. 339, 345, with approval; *Smith v. Illinois Bell Tel. Co.*, 282 U. S. 133, 51 S. Ct. 65, 75 L. Ed. 255; *Western Distributing Co. v. Public Service Com. of Kansas*, 285 U. S. 119, 52 S. Ct. 283, 76 L. Ed. 655; *Dayton Power & Light Co. v. Public Utility Com.*, 78 L. Ed. 832, 836, 54 S. Ct. 647, 650.

[fol. 45] Confiscation of Property

The constitutionality of a rate depends upon whether it will yield a fair return for the present and immediate future, on the value of the property used in the public service. In absence of an actual test under a new rate, the question of whether it will afford a reasonable return is one of fact. The burden rests heavily upon one seeking to set aside a state-made rate to plead and prove the invalidating facts. *Aetna Ins. Co. v. Hyde*, 275 U. S. 440, 72 L. Ed. 357; *Beaumont S. L. & W. Ry. Co. v. United States*, 282 U. S. 74, 75 L. Ed. 221; *Brush Electric Co. v. Galveston*, 262 U. S. 443, 67 L. Ed. 1076. Appellee failed as a matter of law to plead and prove any invalidating fact as to the rate in suit; to which question we now pass.

[fol. 46] Legal Sufficiency of Evidence to Show Rate Confiscatory or Unreasonable and Unjust

The remaining question concerns the legal sufficiency of the evidence adduced by appellee to show that the 32¢ city gate rate was confiscatory and unreasonable and unjust. The rate was alleged to be so because it would not afford a reasonable return on the fair value of the property used in the public service of delivering gas to the various city

gates, and amounted to taking the property without just compensation or due process of law, in violation of the 14th amendment to the Federal Constitution. When viewed in the light of the presumption in favor of the validity of the rate order, and the quantum and character of the evidence required to overcome such presumption, the evidence adduced by appellee was clearly insufficient to show the rate confiscatory or unreasonable and unjust on the ground alleged.

The rate fixed by the Commission is presumed to be valid, reasonable and just until it is declared otherwise by a court of competent jurisdiction. *R. R. Com. v. Uvalde Construction Co.*, 49 S. W. (2d), 1113. In order to overcome this presumption in favor of the validity of the rate on the constitutional ground of confiscation, the burden of proof rests heavily upon appellee. *Dayton P. & L. Co. v. Pub. Com.*, 292 U. S. 290, 78 L. Ed. 1267. And in order to set aside the rate as being unreasonable and unjust, Article 6059 requires that appellee show by "clear and satisfactory evidence that such rate is unreasonable and unjust as to it." A controversy immediately arises as to the proper [fol. 47] interpretation to be given these rules and statutory requirements as to the burden and quantum of proof. The Commission contends that the rate must be sustained against the attack that it is confiscatory and unreasonable and unjust, because it does not allow a reasonable return on the fair value of the property, when it is shown to be based upon substantial evidence adduced before the Commission, and that only the evidence adduced before the Commission on the rate hearing may be considered on appeal to the court. On the other hand, appellee contends that the hearing on appeal to the court of such issuance is *de novo*, and that "due process of law requires submission to a judicial tribunal for determination upon its own independent judgment as to both law and facts according to the settled rules governing judicial action and decision." *Otis Elevator Co. v. Com.*, 302 Ill. 90; *Ben Avon Burough v. Ohio Valley Water Co.*, 253 U. S. 287; *Regan v. Farmers Loan & Trust Co.*, 154 U. S. 363, 38 L. Ed. 1014. As regards the rate making power of the Commission, the Texas courts have adopted this wider scope of review. *Com. v. H. & T. C. R. R. Co.* 90 Texas, 352, 38 S. W. 750; *Com. v. Weld et al*, 96 Texas, 403, 73 S. W. 529; *G. C. & S. F. Ry. v. Com.*, 113 S. W. 741; *Com. v. S. A. Compress Co.*, 264 S. W. 214, (writ

refused); *Houston Chamber of Commerce v. Com.* 19 S. W. (2d), 583, affirmed 78 S. W. (2d), 591; and *M. K. & T. Ry. Co. v. Com.*, 3 S. W. (2d) 489 (494), affirmed 13 S. W. (2d), 679, wherein this court said:

"Rate making is essentially a legislative function, and operates prospectively. *Railroad Com. vs. Weld & Neville*, above; *Prentis vs. Atlantic Coast Line Co.*, 211 U. S. 226, 29 S. Ct. 67, 63 L. Ed. 158, 159, and authorities there cited. And the same is true of many rules and regulations within [fol. 48] the delegated powers of the commission. Rate making has been delegated to the Railroad Commission alone, and its acts in that regard have the force and effect of statutes, and are subject to review to the extent only that statutes of the same import are so subject, with the additional power which articles 6657 and 6658 confer upon the courts to determine whether a rate, etc., is unreasonable or unjust to the party complaining."

The case of *Crowell v. Benson*, 285 U. S. 22, 76 L. Ed. 598, in determining the scope of review and whether new evidence will be heard on appeal from a state commission's rate order, held as follows:

"In cases brought to enforce constitutional rights the judicial power of the United States necessarily extends to the independent determination of all questions, both of fact and law, necessary to the performance of that supreme function. The case of confiscation is illustrative, the ultimate conclusion almost invariably depending upon the decisions of questions of fact. This court has held the owner to be entitled to 'a fair opportunity for submitting that issue to a judicial tribunal for determination upon its own independent judgment as to both law and facts.'" * * *

"Assuming that the Federal court may determine for itself the existence of these fundamental or jurisdictional facts, we come to the question—Upon what record is the determination to be made? There is no provision of the statute which seeks to confine the court in such a case to the record before the deputy commissioner or to the evidence which he has taken. * * *

"We think that the essential independence of the exercise of the judicial power of the United States in the enforcement of constitutional rights requires that the Federal

court should determine such an issue upon its own record and the facts elicited before it."

See also *State Com. v. Wichita Gas Co.*, 290 U. S. 561, 78 L. Ed. 500; *Lehigh Valley R. Co. v. Com.*, 278 U. S. 24, 73 L. Ed. 161; *Prendergast v. N. Y. Tel. Co.*, 262 U. S. 43, 67 L. Ed. 853.

As regards the statutory appeal authorized by Article [fol. 49] 6059, to determine whether a rate order is unreasonable and unjust, it is manifest that the legislature intended for the trial on appeal to be de novo and upon new or additional evidence pertinent to the issue, because the complainant is required to show by "clear and satisfactory evidence that such rate is unreasonable and unjust as to it." Similar statutes regarding railroad rates have been so construed by the above cited Texas cases, and in other states. The scope of judicial appellate review of orders of administrative boards or commissions is usually controlled by legislative enactment. This may be either by a hearing de novo or it may mean merely the correction of non-permissible error. Freund on Administrative Powers over Persons and Property, 278. Statutes which authorize appeals from matters of purely administrative decision or discretion are usually construed to authorize only the correction of non-permissible error, or to favor the merely corrective scope of review. Illustrative of these matters is the question of issuing a license, or the granting of a permit, or determining whether a public necessity or convenience exists for bus or truck operation. In such cases the legislature does not vest in courts the administrative function of determining whether a license, permit, or certificate of convenience or necessity should issue, but merely gives the courts authority to determine whether the action of the administrative board or commission is (a) beyond the power it could constitutionally exercise, or (b) beyond its statutory power, or (c) based upon substantial evidence.

As to such administrative matters the legal effect of the [fol. 50] findings of fact by the administrative body approximates a question of law, and a finding without evidence is, of course, beyond the power of the administrative body. Nor will courts in such cases review conclusions of the administrative body based upon conflicting evidence; but will sustain its order if based upon substantial evidence. Such is the holding in the case of *R. R. Com. v. Shupee*, 57 S. W.

(2d), 295, affirmed 73 S. W. (2d), 505, and R. R. Com. v. Lamb, 81 S. W. (2d), 161. But the questions of whether a rate is confiscatory or unreasonable and unjust have been held to be legal or justiciable questions of fact, and as to which the wider scope of judicial appellate review seems to have been adopted by the legislature and courts of this state. The limited scope of judicial review of rates fixed by an administrative commission was first enforced (*Pick v. Chicago, etc. Ry. Co.*, 94 U. S. 178) by the courts; but was soon abandoned, and through a process of trial and argument of several cases, the present rule that the 14th Amendment to the Constitution protects the property of citizens from confiscation by an act of the Legislature or by a commission to which legislative regulatory power has been delegated, was developed. *State v. Swr. Bell Tel. Co. (Mo.)* 233 S. W., 425.

But whether the scope of judicial review is a hearing de novo or the correction of non-permissible error, the appeal is still merely corrective. The question is not whether the court, if the order were originally before it, would make the same order as was made by the Commission, but only whether the commission has acted reasonably upon sufficient evidence, and whether any substantial right of the complain[fol. 51]ing party has been infringed. In determining the sufficiency of the evidence under the wider scope of judicial review, the question is not whether there is a scintilla of evidence to support the order, but whether the order is fairly and substantially supported by the evidence, when viewed in the light of the presumption in favor of the order, and the quantum and character of the evidence required to overcome such presumption. Particularly is this so with regard to making rates or division of rates, which are legislative and not judicial in character, and necessarily imply a range of legislative discretion, which the courts must recognize, and with which they cannot interfere except where constitutional or statutory rights are violated. The reason for the court appeal being corrective only is well stated in the Bell Telephone case, *supra*, as follows:

"The statutes declaring rates fixed by the Commission to be prima facie reasonable until that presumption is removed by one seeking their annulment are but a proper recognition of the power and purpose of the Commission,

without which its acts would be mere empty declarations, whose effective operation would, in each instance, have to await judicial approval. Such a conception of the nature and powers of the Commission is wholly unauthorized. Organized, as the Statute creating the Commission clearly declares, for the purpose of supervising and regulating public service corporations, the courts, in reviewing its actions, proceed upon the assumption that the experience of the members of the Commission has especially fitted them for dealing with questions concerning the powers and activities of such corporations; and, despite the fact that the entire evidence will be reviewed, much consideration is to be given to the findings of the Commission, which, if reasonable, and neither arbitrary nor capricious, will be deferred to. *N. Y. & G. Gas Co. v. McCall*, 245 U. S. loc. Cit. 347, 38 Sup. Ct. 122, 62 L. Ed. 337."

In the case of *R. R. Commission v. Galveston C. of C.*, 105 Texas, 101, 145 S. W., 573, which construed the similar [fol. 52] statutes authorizing appeals from railroad rates fixed by the Commission, and the statutory requirement that complainant show "by clear and satisfactory evidence that the rates are unreasonable and unjust," the scope of judicial appellate review was held to be as follows:

"The foregoing statute, so guards the Commission from improper interference that the courts must regard its actions, when within the limits of its delegated powers, as being the result of a purpose to do justice between all parties, and as having resulted in just and correct action until it be shown by clear and satisfactory evidence to be otherwise. *R. R. Commission v. Weld & Neville*, 96 Texas 409. The language, "clear and satisfactory evidence," limits the power of courts in setting aside rates, etc., to cases in which it may be established by evidence which leaves no reasonable doubt in the judicial mind that the rate or rule is unjust and unreasonable. *Willis v. Chowning*, 90 Texas, 617. It is true that this attributes to the work of the Commission a high degree of verity, but it is the plain language of the law, and is no doubt a wise provision."

"It is not within the language nor the spirit of the law which authorizes the courts to review the action of the Railroad Commission that any court should investigate the methods adopted by the Commission in fixing its rates

nor the motives or purposes which prompted such action. The result and its effect upon the rights of railroads and shippers mark the limit of judicial inquiry."

The rules and statutory requirements are general in nature and their applicability necessarily depends upon the facts in each case. No rule can be laid down as to rates which will apply uniformly to all sorts of utilities. In determining whether a rate is confiscatory or unreasonable and unjust because it may not in the future yield a proper return, the basis of calculation is the fair value of the property used in the public service. What may be a fair return for one may be inadequate for another, depending upon circumstances, competition or monopoly, public necessity, speculative and highly profitable enterprises, hazards, locality [fol. 53] and risk. And where as in the instant case the evidence is conflicting and the conclusion to be drawn therefrom in respect of this or that item uncertain or speculative, the court should not interfere with gas rates in advance of any actual experience of the practical result of such new rates. *Wilcox v. Consolidated Gas Co.*, 212 U. S. 19, 53 L. Ed. 382; *Brush Ele. Co. v. Galveston*, 262 U. S. 443, 67 L. Ed. 1076. *N. P. Ry. Co. v. North Dakota*, 216 U. S. 579, 54 L. Ed. 624; *Cedar Rapids Gas Light Co. v. Cedar Rapids*, 223 U. S. 655, 56 L. Ed. 594; *Louisville v. Telephone Co.*, 225 U. S., 430, 56 L. Ed. 1151; *Knoxville v. Knoxville Water Co.* 212 U. S. 1, 53 L. Ed. 371. Especially is this true where our statutes and the rate order here complained of provide that "this proceeding shall be kept open for such orders as may be proper." Immediately upon the rate in question being fixed, appellee applied to the courts to restrain its enforcement before an actual test was had under the reduced rate.

On the hearing before the Commission as well as on appeal to the court, five primary factors were considered as essential to the correct determination of whether the rate was confiscatory or unreasonable and unjust because it did not allow a reasonable return on the fair value of the property of appellee used in the public service of delivering natural gas to the various city gates, as follows:

1. What was the present fair value of the property of appellee used in the public service?
2. What was a reasonable annual allowance for depreciation [fol. 54] of such property?

3. What were the reasonably necessary operating expenses?

4. What were the reasonable operating revenues?

5. What was a reasonable rate of return on the property used?

The fair value of the property used by appellee in the public service was determined by deducting from the reproduction cost new the accrued depreciation of such property. Since appellee was engaged in the integrated business of producing, purchasing, transporting and selling natural gas to the distributing companies at the city gates of some 300 cities and towns in Texas and Oklahoma, it became necessary to allocate or segregate the property used in Texas as well as that used conjointly in both states, in order to determine the fair value of the property used in the Texas public service, the annual depreciation thereof, and the Texas operating expenses and revenue. In making the segregation and proof of fair value of the property, both the Commission and appellee used calculations, estimates and opinions of expert accountants and engineers. However, different methods of segregation were adopted by the parties. The method of segregation adopted by the Commission provided for allocation to Texas operations, or to intrastate commerce the value of all property located within the physical boundary of Texas. The short section of pipe line from Texas Panhandle field across the corner of Oklahoma and back into Texas was also allocated to Texas operations. Gas sales adjustment was made wherein Texas or intrastate operations were charged with the net amount of Oklahoma produced gas for the six-year [fol. 55] (1929-1934) accounting period adopted by the Commission. No charge against Oklahoma or interstate operations was made for the use of the transmission lines and for equipment within Texas; the effect of which was to give free transportation in Texas of all Oklahoma produced gas. Texas and Oklahoma expenses and revenues were allocated in general accord with the segregation of the physical properties. Under this method the fair value of the property undepreciated, used in Texas public service was \$40,256,862.39, according to the calculations and opinions of the Commission's experts. After deducting the operating expenses and annual depreciation there re-

mained for the last two years of the accounting period, being the two lowest revenue years of the period, Texas net revenue which would yield a return of 6.74% and 6.76%, respectively. The method of segregation used by appellee was materially different. Under its method of segregation all of the gas produced or purchased by appellee in Texas Panhandle field and transported by its private pipe lines across the corner of Oklahoma and back into Texas for sale and use, and all Oklahoma produced gas were allocated to interstate commerce. The allocation was made by a determination of the specific gravity of the Oklahoma and Texas Panhandle gas on the one hand, and West Texas gas with which it was commingled in pipe lines on the other hand. It seems that the Oklahoma and Panhandle gas had about the same specific gravity. Appellee claimed that by determining the specific gravity of the gas in any particular pipe line, the percentage of Oklahoma-Texas Panhandle gas could be determined and [fol. 56] allocated to that line. Appellee allocated operating expenses and revenue between the two states upon substantially the same basis as used for the property. An expert employed by appellee found the fair value of property used in Texas public service, based upon reproduction cost new, less depreciation, to be \$38,350,882.32. He excluded from this calculation all property and equipment used in handling the Texas Panhandle field gas. If he had allocated such property to Texas and considered the fair value of the property as undepreciated, there would have been very little difference between his finding of fair value and that found by the Commission's experts. However, in all their elaborate calculations, estimates and opinions, the experts employed by the appellee allocated the Texas Panhandle gas to interstate commerce. We have held that this gas did not move in interstate commerce, and it necessarily follows that the testimony of the experts based upon the erroneous assumption that such gas did move in interstate commerce proved nothing material to this case. Appellee offered no other proof upon a correct segregation or allocation of the property, and the trial court erred in refusing the Commission's motion for an instructed verdict and for judgment declaring the rate order appealed from to be valid in every respect. The burden was upon appellee to show by clear and satisfactory evidence a proper segregation of interstate and intrastate properties and busi-

ness, and to show the value of the property employed in intrastate business or commerce and the compensation it would receive under the rate complained of upon such valuation. Having failed to make a proper segregation of [fol. 57] interstate and intrastate properties, appellee did not adduce the quantum and character of proof necessary to establish the invalidity of the rate as being confiscatory, or unreasonable and unjust. *Simpson v. Shepard*, 230 U. S. 352, 57 L. Ed. 1511; *Allen v. St. Louis, I. & M. S. R. Co.*, 230 U. S. 553, 57 L. Ed. 1625; *Smith vs. Illinois Bell Tel. Co.*, 282 U. S. 133, 75 L. Ed. 255.

Clearly the difference in theory as to whether the gas produced or purchased by appellee in the Texas Panhandle field and transported by its private pipe line across a corner of Oklahoma and back into Texas, where it was intended at all times to be sold and used, accounts for most of the important difference with respect to the fair value of the property used in Texas public service, the annual depreciation thereof, and particularly as to the operating expenses and revenues. For instance, the Texas Panhandle gas cost appellee 2¢ per thousand cubic feet at the well; whereas, the gas from all other sources or fields cost from 6 to 10¢ per thousand cubic feet. The advantage in favor of appellee in excluding this gas from intrastate commerce is apparent. The cost of the 2¢ gas would add only about \$125,000 annually to Texas operating expenses, according to appellee's Exhibit No. 46; whereas, according to the same exhibit, which shows the percentage of the total cost of gas transported from the Panhandle field and sold in Texas, the Texas revenue would have been increased for the 1929-1933 period more than \$1,500,000 annually; and calculations show that if other proper operating expenses were included and charged against the Panhandle gas, still [fol. 58] the profit in such gas was more than in other gas handled by appellee either in Oklahoma or Texas. Thus the double advantage to appellee in freeing this gas from intrastate commerce and from state regulation is shown.

The appraisals also differ as to various units of transmission construction costs, due in a large measure to the difference in theory of segregation. Where they relate to the same property the appraisals are in every way comparable. Appellee used actual cost experiences and arbitrarily added 20% as possible contingencies. The Com-

mission allowed only actual cost experiences, which were substantiated by the testimony of contractors engaged in excavation and general construction work. At most the evidence merely presented the difference of opinions of equally well qualified experts. Manifestly this evidence in absence of actual experience under the rate, does not meet the quantum and character of proof necessary to set aside the rate order as being confiscatory or unreasonable and unjust as to appellee.

The greatest difference between the parties relates to a proper allowance for depreciation and amortization. Appellee estimated that for both Texas and Oklahoma properties, exclusive of gas leasehold depletions, the annual requirement for depreciation and amortization was \$3,465,123.36. The Commission estimated that appellee should be allowed for annual depreciation and amortization of its Texas properties exclusive of leaseholds, the sum of \$831,946.08. The actual experience of the appellee for the seven-year period as shown by its books, is as follows:

[fol. 59] "Jan. 1, 1927, to Dec. 31, 1933, Inclusive"			
Jan. 1st	Balance	Accrual	Net Charges
1927	\$8,294,762.08	\$1,280,856.10	\$245,097.73
1928	9,330,520.45	1,198,192.50	260,768.59
1929	10,267,944.36	1,190,062.06	450,335.00
1930	11,007,671.42	580,022.80	464,875.93
1931	11,122,818.29	1,841,779.61	720,014.28
1932	12,244,583.68	1,841,508.16	(Credit 62,725.18
1933	14,148,817.02	1,882,333.41	335,736.55
1934	15,695,413.88	Total.....	\$2,414,102.90"

Thus it is shown that the depreciation allowance of appellee's experts is speculative, at war with the actual experience, and plainly excessive. Against \$2,414,102.90 for the seven-year period as evidenced by appellee's books, its experts estimate annual depreciation and amortization at approximately \$1,000,000.00 per year more. With respect to such proof it was held in the case of *Lindeheimer v. Ill. Bell Tel. Co.*, 292 U. S., 151, 78 L. Ed. 1182, that:

"The company has had abundant opportunity to establish its contentions. In seeking to do so the company has submitted elaborate estimates and computations, but these have overshot the mark. Proving too much, they fail of the intended effect."

"Elaborate calculations which are at war with realities are of no avail."

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The Commission adopted the sinking fund method for determining annual depreciation, which provides for an annual return on an undepreciated rate base; and which in addition to the annual depreciation of \$831,946.08, also allowed 6% per annum on the accumulated depreciation reserve. The calculations and estimates of appellee applied to both Texas and Oklahoma properties, and since such calculations and estimates are so contrary to the experiences of the company, they do not meet the quantum [fol. 60] and character of proof required with respect to judicial appellate review of utility rates fixed by an administrative commission or board. *Dayton P. & L. Co. v. Pub. Com.*, *supra*.

With respect to operating expenses, except as to a few controverted items, and with respect to revenues, there is no substantial difference in the testimony as to totals of both Texas and Oklahoma for the years of the accounting period. However, the same controversy arises as to a proper segregation of such expenses and revenues to each state. This difference has already been pointed out, and since appellee failed to make proper segregation of the expenses and revenues, it failed to prove its case.

Many items of operating expense are so contrary to the actual experiences of appellee, or are so large as to be excessive on their face. A few of these will be adverted to as showing that in proving too much appellee's experts proved nothing.

Federal Taxes

An item of between three and four hundred thousand dollars a year is set aside by the experts as federal income and other taxes. The company has never paid an income tax, and its liability therefor is now in litigation. The only testimony in the record with regard to the amount that should be paid for taxes by appellee in its department of the corporate hook-up was around \$50,000 per annum. The testimony indicates that the Lone Star Gas Corporation, the holding company, has paid all of the income taxes for all of its affiliated companies; but if it be assumed that such payment is chargeable back to appellee company, a [fol. 61] proper amount would not be more than \$50,000 per year, instead of the three or four hundred thousand dollars charged against it by the experts. *Galveston Electric Co. v. Galveston*, 258 U. S., 388.

Management Fees

The evidence shows that the holding corporation has charged appellee management fees ranging from \$78,000 to around \$100,000 per year. These fees appellee claims were earned by four persons, Crawford, Mitchell, Gregory and Simpson. They are directors of one or the other corporations constituting the corporate set-up above referred to. Simpson seems to have rendered service as a purchaser of pipes for appellee. The item of pipes was the greatest of appellee's expenses. The evidence shows that if Simpson rendered any service in purchasing pipes at a discount, that no such discount would be any longer allowed, and that appellee would have to pay the quoted prices like anyone else. Manifestly this service is not worth anything in the future. Besides, he rendered the services prior to 1929, when the management fee was originated, and no compensation was required before that time. Other management fees were charged, as legal fees, accounting fees, and engineering and supervision fees. Appellee was organized in 1909, with a capital stock of \$2,500,000, half of which was paid for with gas leases owned by the incorporators. Since then its capital stock has been increased to \$12,500,000. It borrowed on its unsecured note or open account \$17,600,000 from the holding corporation, which debt with others amounting to \$19,000,000, have been gradually reduced. The holding [fol. 62] corporation borrowed this money from one-half to two per cent less than it charged appellee. This ought to be sufficient management fees, if any should be demanded by the holding corporation. The holding corporation has been paid fair to large dividends annually on the stock of appellee owned by it. In addition, some of the holding company officers are paid salaries by appellee and the affiliated distributing companies. The proof as to the reasonableness of the management fee was not clear and satisfactory, as required to be under the aforementioned rule.

New Business Expenses

These advertising or new business expenses vary from \$81,000 to \$126,000 per annum. Appellee does business with the affiliated corporations. Besides sale of the industrial gas, the affiliated corporations sell to the domestic

and local burner tip consumers. Appellee proved only a small amount of advertising, nothing in proportion to the charges made by the experts in their account. Except for a few items, it made no showing how much advertising it did for the affiliated distributing companies; and certainly this \$100,000 annual expense for advertising is not supported by the quantum and character of evidence required.

Cancelled and Surrendered Leases

The undisputed evidence shows that appellee has gas reserves which are adequate for forty years to come. It has gas reserves in the largest gas fields in the world. Beginning in 1929, appellee began to charge off around \$200,000 per annum for cancelled and surrendered leases. In view of its admitted large gas reserves, which will last for forty [fol. 63] years, and in view of the fact that it is a matter of judicial knowledge that gas by the multiplied millions in cubic feet is being wasted daily because of the lack of a market, we think these large charges are unjustified. The Commission allowed the company for its gas produced from company owned wells the full prevailing price. They eliminated production expenses, drilling and tool expenses, dry holes, and cancelled and surrendered leases, because the method adopted of allowing the full prevailing field price concurrently paid to other gas owners necessarily eliminated such items. The owners of other gas wells bear all of these expenses, and it would seem that the price paid other owners includes all of these items of expense. *West Ohio Gas Co. v. Public Utilities Com.*, 191 N. E., 105. At any event, if appellee was entitled to some charge for leasehold depletions, the amount claimed was clearly too large and excessive. The burden was upon appellee to show that the charge was reasonable.

Regulatory Commission and General Expenses

The experts employed by appellee charged in excess of \$400,000 per annum for regulatory commission and general expenses. The proof did not show the reasonableness of any item of such expense. There was some character of litigation in Oklahoma and this present litigation. If the entire expense should be spread over a period of years since 1909, when the appellee began to do business; it would amount to some \$16,000 per year. A witness for appellee

testified that such annual amount would be reasonable. It is, therefore, manifest that \$50,000 per year or better for [fol. 64] such expenses is too much. This defendant began business in 1909, with a comparatively small capital stock. It has now a capital stock of \$12,500,000, which is fully paid up. It owes approximately \$17,600,000; it has properties in Oklahoma and Texas of the aggregate value of \$75,000,000. Allocated to Texas public service is property valued at \$40,000,000. Appellee offered evidence covering only about 3½ years next preceding the fixing of the rate as to its operating expenses. These calculations covered the depression years, which, of course, are the worst in its history; and even at that the last year shows an upward trend in its business. It is not shown to have lost money at any time, nor to have failed to earn a fair return upon the property allocated to Texas, not even for the year 1933, which was the most abnormal one from the standpoint of temperature and financial depression. Its experts testified that its property is almost 85% perfect. From the very beginning appellee has been favored, enjoying a clear monopoly with all the rights of eminent domain. There is nothing in the history of appellee's business experience which would justify the exorbitant and large account sought to be charged in this item of expense.

Going Value

In arriving at its rate base appellee included an item of more than \$7,000,000 as "going value". Appellee has not experienced any losses on account of inception costs, which are usually included in going value. With the exception of a few small items, inception costs of all kinds have been included in reproduction cost new calculations. Appellee's [fol. 65] business was valued as an assembled and going business. The business has always been profitable, and all inception costs have no doubt been long since paid out of rates heretofore charged and collected. The reproduction cost new value, as determined in the instant case, allows for all overhead expense, which, together with the reasonable operating expenses allowed, fully compensate appellee for all development costs which have been incurred, and are ample to cover items entering into and forming a part of what is referred to as "going concern value". The following authorities show clearly the impropriety of allow-

ing going concern value under the facts of the instant case. *Los Angeles Gas & Electric Corp. v. R. R. Com.*, 289 U. S., 287, 77 L. Ed. 1180; *Columbus Gas & Fuel Co. v. Pub. U. Com.*, 78 L. Ed. 1327; *Dayton Power & Light Co. v. Utility Com.* 292 U. S. 290, 78 L. Ed. 1267; *Galveston Electric Co. v. Galveston*, 258 U. S., 388, 272 Fed. 147.

Rate of Return

It is the contention of appellee that the jury may have found that a 6% rate of return was confiscatory or unreasonable and unjust. The issue of confiscation was not submitted to the jury, and we are clear in the view that the evidence adduced by appellee did not raise a jury question as to whether a 6% rate of return was either confiscatory or unreasonable and unjust. The Commission found that a 6% rate of return on the fair value of the property used in the public service, after allowing for all reasonable operating expenses and for depreciation and amortization, was sufficient. The burden was heavily upon appellee to show by clear and satisfactory evidence that such rate of return [fol. 66] was confiscatory or unreasonable and unjust. To meet this test appellee was required to "establish by evidence which leaves no reasonable doubt in the judicial mind that the rate or rule is unjust and unreasonable." *R. R. Com. v. Galveston*, etc., *supra*. This appellee did not do. It offered the testimony of an interested witness and the testimony of experts employed by it to the effect that in their opinion an 8% or 10% rate of return would be reasonable. A disinterested expert testified that under present business conditions a 6% rate of return was entirely fair and reasonable. This evidence merely presented the difference of opinion of experts, and manifestly their opinion or opinions cannot be substituted for the finding of the Commission that a 6% rate of return was fair and reasonable, which finding was based upon substantial evidence. In fact, six per cent per annum is the legal or statutory rate of interest in this State, and appellee offered no evidence which even tended to show that a 6% rate of return would confiscate its property, or was unreasonable or unjust. And since the rate order was calculated upon the fair value of the property used in the public service, after allowing very reasonable operating expenses and depreciation

and amortization allowances, no reason exists why the 6% rate of return should be declared confiscatory; but to the contrary, it should be held to allow a fair and reasonable rate of return on the property dedicated to the public service by appellee.

A 6% rate of return has been held not confiscatory in the following cases: *Wilcox v. Consolidated Gas Co.*, 212 U. S. [fol. 67] 19, 48, 50, 29 S. Ct. 192, 53 L. Ed. 382, 15 Ann. Cas. 1034, 48 A. L. R. (N. S.) 1134; *Cedar Rapids Gas & Light Co. v. Cedar Rapids*, 223 U. S. 655, 670, 32 S. Ct. 389, 56 L. Ed. 594; *Des Moines Gas Co. v. Des Moines*, 238 U. S. 153, 172, 35 S. Ct. 811, 59 L. Ed. 1244. See also *Stanislaus County v. San Joaquin C. & I. Co.*, 192 U. S. 201, 216; *West Ohio Gas Co. v. Public Utilities Com.*, 191 N. E. 105, 115; *State ex rel Capital City Water Co. v. Public Service Com. of Missouri*, Sup. Ct. of Mo. in Banc, 252 S. W. 446, 454-459.

We are also clear in the view that where a state commission fixes a utility rate so as to allow a 6% rate of return on the property used in the public service, the courts will not, prior to a fair test of such rate, declare same void, unless the evidence establishes that it is confiscatory or invalid as a matter of law. *Denver Union Stock Yard Co. v. United States*, 57 Fed. (2) 735, 752, 753; *State v. Public Service Com.*, 252 S. W. 446, 458 (Mo. in Banc); *Knoxville v. Water Co.*, 212 U. S. 1, 15; *West Ohio Gas Co. v. Public Utilities Com.*, 191 N. E. 105, 110; *Cedar Rapids Gas Co. v. Cedar Rapids*, 223, U. S. 655, 666, 670; *Wilcox v. Consolidated Gas Co.*, 212 U. S. 19, 51; *Railroad Com. of Louisiana v. Cumberland Tel. & Tel. Co.*, 212 U. S. 414, 426.

The calculations, estimates and opinion of its experts show a studied effort on the part of appellee to charge large items as operating expenses and depreciation, at war with the actual experience of the company, and we find no proof which would authorize the trial court to submit any issue to the jury, but find that appellee wholly failed to meet the [fol. 68] burden of proof placed upon it, and to show by clear and satisfactory evidence that the rate was confiscatory, unjust, and unreasonable as to it. Especially is this true in view of the rule that absence actual experience under the rate fixed, the courts will not disturb a rate where the evidence is so conflicting, and the conclusions to be drawn therefrom in respect to this or that item uncertain

and speculative; and particularly is this true where, as in the instant case, if it be shown in actual experience that the rate would not afford a reasonable return and was confiscatory, appellee is free to make another application for relief before the Commission.

Judgment of the trial court declaring the rate to be unjust and unreasonable is reversed. The injunction granted by the trial court is dissolved, and the city gate rate of 32¢ fixed by the Commission is declared to be just, reasonable and valid in every particular.

M. B. Blair, Associate Justice.

Judgment trial Court Reversed; Injunction Dissolved.

[File endorsement omitted.]

[fol. 69] IN COURT OF CIVIL APPEALS OF TEXAS

8238

STATE OF TEXAS ET AL. VS. LONE STAR GAS COMPANY

Appeal from District Court of Travis County

Opinion by Associate Justice Blair

JUDGMENT—July 10, 1935

This cause came on to be heard on the transcript of the record and same being inspected, because it is the opinion of the Court that there was error in the judgment; It is therefore considered, adjudged and ordered that the judgment of the trial court be, and same is hereby reversed, and that judgment be, and is hereby rendered for appellants decreeing that the order of the Railroad Commission of Texas, appealed from, is valid in every particular; and it is further ordered, adjudged and decreed that the injunction granted by the trial court be, and same is hereby dissolved; that the appellee, Lone Star Gas Company, pay all costs in this behalf expended, both in this Court and in the trial court, and that this decision, with a copy of the opinion herein delivered, be certified below for observance.

[fol. 70] IN COURT OF CIVIL APPEALS FOR THE THIRD
SUPREME JUDICIAL DISTRICT OF TEXAS

[Title omitted]

APPELLEE'S MOTION FOR REHEARING—Filed July 24, 1935

Comes now Lone Star Gas Company, appellee in the above styled and numbered cause and moves the court to set aside its judgment reversing the judgment of the District Court and rendering judgment for appellants, rendered on the 10th day of July, A. D. 1935, and to grant appellee a rehearing, and as grounds for its motion appellee respectfully shows:

1

The Honorable Court of Civil Appeals having held that [fol. 71] the scope of judicial review of the Railroad Commission's order by the district court under the Texas statutes, on appellee's claim that said order is unjust, unreasonable and confiscatory, is merely corrective and that such review is limited to a determination of whether the commission's order is supported by substantial evidence, erred in failing to declare said order void as being in conflict with the due process requirements of the 14th Amendment to the Federal Constitution, which entitles appellee to a judicial review of said order before a court with power to exercise an independent judgment as to both the facts and law involved.

2

The Honorable Court of Civil Appeals having held that under the statutes and procedure of Texas the district court was without power to exercise an independent judgment as to the probative force of the facts involved and the law applicable thereto on the issue of confiscation, unjustness and unreasonableness of the Railroad Commission's order as raised in appellee's answer and by appellee's evidence, the Honorable Court of Civil Appeals erred in failing to hold said order invalid and void as being in conflict with the due process clause of the 14th Amendment to the Constitution of the United States.

3

The court having held in effect that in suits filed pur-
[fol. 72] suant to the provisions of Article 6059 R. S. 1925

the courts may not exercise an independent judgment in determining whether rate orders of the Railroad Commission are unjust and unreasonable or confiscatory, but that the courts must affirm such orders if there is substantial evidence to support them notwithstanding the evidence is conflicting, erred in holding the Railroad Commission's order valid for the reason that such holding denies to appellee a judicial review of the rate order in question on the constitutional issue of confiscation to which appellee is entitled under the 14th Amendment to the Constitution of the United States.

4

The court having construed Article 6059 R. S. 1925 as withholding from the district court the power to determine the question of confiscation, unjustness and reasonableness of the rate order of the Railroad Commission according to its own independent judgment, the court erred in sustaining the commission's order and in not holding the same invalid and repugnant to the 14th Amendment to the Federal Constitution for want of due process of law in the State procedure for testing the validity of said order.

5

The court erred in holding that in determining the question of whether the order of the Railroad Commission was confiscatory of appellee's property used in the public service the district court was confined to a determination of [fol. 73] whether or not there was substantial evidence to support the order of the commission, and that if there was such evidence the order of the commission must be upheld, because such holding operates to deny to appellee the right to the independent judgment of the court on both the facts and law and to deny to appellee the right to a determination of the reasonableness of the order based upon the weight to be given to conflicting testimony, in violation of appellee's rights under the due process clause of the 14th Amendment to the Constitution of the United States.

6

The judgment of the Honorable Court of Civil Appeals is erroneous in that the court in effect has denied to the district court the power to pass upon the facts which underlie the

question of whether or not appellee's property is being confiscated, and inasmuch as neither this court nor the Supreme Court of Texas has any statutory power to pass upon such facts, appellee has been denied the opportunity of having the independent judgment of a Texas court on questions of fact involved in a determination of the issue of confiscation and thus has been denied due process of law in violation of its rights under the 14th Amendment to the Constitution of the United States.

7

The judgment of the Honorable Court of Civil Appeals is erroneous in that the court has construed Article 6059 Re-[fol. 74] vised Statutes of 1925, as withholding from the district court the power to pass upon the facts which underlie the question of whether or not appellee's property is being confiscated.

8

Inasmuch as the Honorable Court of Civil Appeals holds that this suit, or appellee's answer herein, is in effect an appeal from the order of the Railroad Commission pursuant to the provisions of Article 6059 Revised Civil Statutes of Texas, and inasmuch as the court has construed that statute as withholding from and denying to the district court the right and power to exercise an independent judgment on the facts underlying the issue of the unreasonableness, unjustness and confiscatory character of the order of the commission and has held that the order of the commission must be sustained if there is any substantial evidence offered upon the trial de novo supporting it, and inasmuch as the statutes and Constitution of Texas as construed deny to this court and the Supreme Court of Texas such power and authority, and inasmuch as appellee has been compelled to follow the procedure which has been followed against its wishes and over its objection, appellee has not obtained that due process of law to which it is entitled under the 14th Amendment to the Constitution of the United States. Accordingly, the order of the commission was void and the court erred in failing to so hold.

9

Appellee having filed its bill of complaint in the United States District Court for the Western District of Texas al-

[fol. 75] leging that the order of the Railroad Commission was unjust, unreasonable and confiscatory and praying for an injunction enjoining and restraining the enforcement of said order, and said proceeding having been stayed and suspended after the filing of this suit and until its final determination pursuant to Section 266 of the Judicial Code, and appellee having been forced to defend itself in this proceeding brought to enforce the commission's order, and having alleged as a defense to this suit that said order of the Railroad Commission was unjust, unreasonable and confiscatory, and having produced competent evidence showing that under said order it would not receive an annual return of six (6%) per cent on the fair value of its public service property, which the commission held was the minimum return to which appellee is entitled, the Honorable Court of Civil Appeals erred in reversing the judgment of the district court that said order was unjust and unreasonable and invalid, and in holding that the district court in this case was without power to exercise an independent judgment as to the law and facts involved on the conflicting evidence but was required as a matter of law to instruct a verdict in favor of appellants sustaining the validity of the commission's order.

10

The court erred in holding that appellee obtained a trial de novo on the question of confiscation or on the question [fol. 76] of the reasonableness and justness of the order of the commission in view of its holding that the order of the commission must be upheld as a matter of law if there is any substantial evidence to support it, the latter holding denying in substance the right recognized by the former holding.

[fol. 77]

12

The court erred in rendering judgment for appellants, because not only does Article 6059 of the Revised Civil Statutes of Texas as construed deny to appellee due process of law in violation of its rights under the 14th Amendment to the Constitution of the United States, and not only does the court treat this case and answer of appellee as an appeal thereunder, but appellee has been compelled to follow the procedure outlined thereunder upon representations by ap-

pellants that every constitutional and legal right to which it might be entitled would be fully safeguarded and that it would be entitled to the same sort of trial to which it would have been entitled in its suit in the Federal Court upon the basis of which representations the Federal Court stayed proceedings therein, with the result that not only does appellee fail to get the kind of trial to which it would have been entitled in the Federal Court but is denied the opportunity of ever obtaining the same.

* * * * *

[fol. 78]

14

The Honorable Court of Civil Appeals erred in holding in effect that in order to overcome the prima facie presumption of the validity of the Railroad Commission's order, appellee was required, as a matter of law, to show by undisputed and indisputable evidence that the order of the Railroad Commission was unjust, unreasonable and confiscatory.

* * * * *

16

The appellee having alleged that the order of the Railroad Commission was unjust and unreasonable as to it and confiscatory of its property, and appellee's evidence being clear and satisfactory and having clearly shown that the rate prescribed in the commission's order would not afford appellee a net return of six (6%) per cent per annum on the fair value of its public service property which the commission found was the minimum return to which appellee is entitled, the Honorable Court of Civil Appeals erred in holding that because there was a conflict in the evidence and the appellants' evidence sustained the commission's order, the trial court was required as a matter of law to sustain appellants' motion for an instructed verdict.

* * * * *

[fol. 81]

22

The court erred in holding that "when viewed in the light of the presumption in favor of the validity of the rate or-

der, and the quantum and character of the evidence required to overcome such presumption, the evidence adduced by appellee was clearly insufficient to show the rate confiscatory or unreasonable and unjust on the ground alleged."

[fol. 82]

25

The court erred in holding in substance and effect that Article 6059 of the Revised Statutes of 1925, denies to the district court on the trial de novo the right to determine that the order of the commission is unjust and unreasonable if there is any substantial evidence to support the order of the commission, because the statute as thus construed denies to appellee in this case the right to the independent judgment of the court on both the facts and law and is a denial to appellee of due process of law.

26

The court erred in holding that "we are clear in the view that the evidence adduced by appellee did not raise a jury question as to whether a six (6%) per cent rate of return was either confiscatory or unreasonable and unjust," because such holding denies appellee due process of law and the right to a judicial review of the order of the Railroad Commission, based upon the independent judgment of the court on the facts and law, inasmuch as the trial court and the jury are deprived of the right to make such independent determination based upon the credibility of witnesses and the weight to be given to their testimony.

[fol. 83]

29

The court erred in holding that appellee did not meet the burden of showing by clear and satisfactory evidence that the 32¢ rate would not afford a reasonable return on the property used in the Texas public service, and that "the trial court erred in overruling the commission's motions for an instructed verdict and for judgment declaring the rate to be valid," because appellants' evidence, if believed (and the credibility of the witnesses and the weight to be given to

their testimony were matters to be determined by the jury) proved clearly and satisfactorily that the rate was unjust, unreasonable and confiscatory, and such testimony, if it did not prove as a matter of law that the rate fixed by the commission [fol. 84] was confiscatory, unjust and unreasonable, at least raised an issue of fact which should have been submitted to the jury.

30

The court erred in failing and refusing to sustain appellee's Third Cross-Assignment of Error as follows:

"The court erred in overruling and refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from the undisputed evidence, as a matter of law, that the rate of 32 cents prescribed by the commission in its order of September 13, 1933, was unjust, unreasonable, and confiscatory in this, that if said rate had been in effect during the year 1931, and subsequent accounting periods, defendant would not have earned and would not have been able to earn the minimum net rate of return to which the Railroad Commission found it was entitled, upon the fair value of its public service property, as determined by the commission.

"Wherefore, defendant was entitled to an instructed verdict and to judgment based thereon. (Defendant's Cross-Assignment of Error No. 15 (Transcript 587))."

31

The court erred in holding that the fair value of the property undepreciated used in Texas public service was \$40,256,862.39, because such evaluation includes only a part of the property physically located in Texas and none of the property situated in Oklahoma and used in Texas public service.

[fol. 85]

33

The court erred in failing and refusing to sustain appellee's Fifth Cross-Assignment of Error, as follows:

"The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and

timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from the undisputed evidence, as a matter of law, that the rate of 32 cents prescribed by the commission in its order of September 13, 1933, was unjust, unreasonable and confiscatory in this, that if said rate had been in effect during 1931, and subsequent accounting periods, defendant would not have earned and would not have been able to earn anything like the fair net annual rate to which it was entitled in law, or the minimum net rate of return to which the commission found it was entitled upon the fair value, at the time of the inquiry, of all of its public service property, wherever located.

"Wherefore, defendant was entitled to an instructed verdict and to judgment based thereon. (Defendant's Cross-Assignment of Error No. 17, Transcript 589.)"

34

The court erred in failing and refusing to sustain appellee's Sixth Cross-Assignment of Error, as follows:

"The court erred in overruling and in refusing to give [fol. 86] defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from plaintiff's own testimony that the rate of 32 cents prescribed by the commission in its order of September 13, 1933, was unjust, unreasonable and confiscatory in this, that even adopting plaintiffs' valuation of defendant's public service property located in Texas, and assuming that such a valuation is of probative force and effect under the issues made, in this case, nevertheless, if said rate had been in effect during 1933 and 1934, defendant would not have earned as much as the minimum net rate of return to which the Railroad Commission found it was entitled. Hence, on the basis of plaintiffs' own testimony, defendant was entitled to an instructed verdict and to judgment based thereon. (Defendant's Cross-Assignment of Error No. 20, Transcript 591)."

35

It appearing from the undisputed evidence in this case that the rate prescribed in and by the order of the Rail-

road Commission would not permit appellee to earn a reasonable return on the fair value of its property used and useful in the public service, the judgment of the Honorable Court of Civil Appeals affirming the validity of said order operates to take appellee's said property for public use without just compensation or due process of law in violation of appellee's rights under the 14th Amendment to the Constitution of the United States and said Honorable Court of Civil Appeals erred in rendering said judgment and in not affirming the judgment of the district court holding said order invalid.

36

It appearing from the undisputed evidence in this case [fol. 87] that the rate prescribed in and by the order of the Railroad Commission would not permit appellee to earn a reasonable return on the fair value of its property used and useful in the public service, the judgment of the Honorable Court of Civil Appeals affirming the validity of said order operates to take appellee's said property for public use without just compensation or due process of law in violation of appellee's rights under Section 17, Article I, of the Constitution of the State of Texas, and said Honorable Court erred in rendering said judgment and in not affirming the judgment of the district court holding said order invalid.

37

The Railroad Commission and the Honorable Court of Civil Appeals having found and held that appellee's pipe line system in both Texas and Oklahoma is an integrated system, and the Honorable Court of Civil Appeals having further held that the gas produced by appellee in Oklahoma and transported and delivered at points in Texas is not interstate commerce, and the undisputed evidence showing that appellee's property in Oklahoma having a value of several millions of dollars is used in producing gas which is transported by pipe lines and sold in Texas, it was error for the Honorable Court of Civil Appeals to approve appellants' estimate of the fair value of appellee's property which admittedly excluded all of appellee's property [fol. 88] in Oklahoma and upon which estimate the order of the Railroad Commission is held to be fair, reasonable and valid, appellee being denied an opportunity

under the court's holding of earning a reasonable return on the fair value of such property and thereby being denied due process of law and just compensation for the use of its property in the public service in violation of the Texas and National Constitutions.

The witnesses for appellants having eliminated from their computation of the value of appellee's property in Texas, natural gas reserves, including producing as well as non-producing, gas wells and gas well equipment, having an actual book cost of approximately \$4,500,000.00 and pipe lines of the value of many thousands of dollars, all of which the undisputed evidence in this case shows were used and useful in the public service, in order to show that the rate prescribed in the commission's order permitted appellee to earn approximately the six (6%) per cent return which the commission held was the minimum return to which appellee was entitled, the Honorable Court of Civil Appeals erred in holding that appellants' computation of value represented the fair value of appellee's property in Texas and [fol. 89] that the trial court should have instructed a verdict for appellants because there was substantial evidence to support the commission's order allowing appellee a return of 6% per annum, the effect of which holding was to deny to appellee just compensation for the use of its property in the public service in violation of appellee's rights under the Texas and Federal Constitutions.

The witnesses for appellants having included in their computation of appellee's operating revenues \$334,000.00, which indisputably appellee never received, on the ground that appellee would have sold more gas and thereby increased its revenues if the weather had been colder, in order to show a return to appellee of approximately six (6%) per cent per annum on a part of its property located in Texas, the Honorable Court of Civil Appeals erred in holding that there was substantial evidence to support the Railroad Commission's order.

41

The Honorable Court of Civil Appeals erred in holding in effect that after allowing appellee the well head price paid by appellee to independent producers for all gas produced by appellee from its own gas reserves, the elimination from the rate base of gas reserves, gas wells and equipment which cost appellee approximately four million, five hundred thousand (\$4,500,000.00) Dollars, and of appellee's actual expenses of operation for cancelled and surrendered [fol. 90] leases, dry hole expense, gas production expense and drilling and tool expense was justified, inasmuch as the uncontradicted evidence shows that said allowance would be insufficient to provide for the depletion of said gas reserves, allow for the aforesaid expenses of operation and provide any return to appellee on the fair value of its gas reserves, gas wells and gas well equipment.

42

The undisputed evidence showing that appellants' witnesses eliminated from their evaluation of appellee's production system property producing and non-producing gas reserves, gas wells and gas well equipment which cost appellee approximately \$4,500,000.00 and in lieu thereof allowed appellee as an expense of operation the well head price paid by appellee for gas produced from independent gas operators, the court erred in adopting and approving such method of evaluation in affirming the validity of the commission's order, for the reason that such method of evaluation, as well as the court's holding, denies to appellee an opportunity of earning a reasonable return upon the fair value of its property used in the public service.

43

It appearing from the record and evidence herein that after allowing the sum advocated by appellants for annual depreciation, depletion and amortization reserve accruals, and after giving effect to the actual revenues received and operating expenses incurred by appellee, but excluding any fees paid to the holding company, appellee would receive under the rate prescribed in the order of the Railroad Commission, less than a six (6%) per cent

annual return on the property value contended for by appellants under the theory of allocation adopted by appellants and approved by the Honorable Court of Civil Appeals, it was error for the Honorable Court of Civil Appeals to reverse the judgment of the trial court and render judgment for appellants on the grounds that the evidence was insufficient as a matter of law to show that the order of the Railroad Commission was unjust and unreasonable as to appellee.

44

The evidence introduced by appellee having clearly shown that under the rate prescribed in the Railroad Commission's order appellee would receive less than the six (6%) per cent annual return which the Railroad Commission found and held was the minimum return to which appellee is entitled on the fair value of its public service property, the Honorable Court of Civil Appeals erred in reversing the judgment of the trial court and rendering judgment for appellants sustaining the validity of the said order on the grounds that appellee failed, as a matter of law, to offer evidence of such probative force as to overcome the [fol. 92] presumption that said order was valid, just and reasonable.

.

47

The Honorable Court of Civil Appeals having held in effect that the Railroad Commission made out a prima facie case by introducing the order of the Railroad Commission in evidence, which order was based on an evaluation and consideration of appellee's system as a whole and the income from and the expenses on said system, erred [fol. 93] in holding that appellee did not make out a prima facie case of the unjustness and unreasonableness of said order by showing that if said order had been in effect for the years in question appellee would not have earned a six (6%) per cent annual return even on the commission's rate base, and after giving effect to the commission's depreciation allowance and operating expenses.

48

The court erred in holding that the evidence with respect to the question of rate of return merely presented the dif-

ference of opinion of experts and that their opinion or opinions could not be substituted for the finding of the commission that a 6% rate of return was fair and reasonable.

49

The Honorable Court of Civil Appeals erred in holding that the testimony and evidence of appellee as to the proper annual sum to be allowed for credit to a reserve to provide for depreciation, depletion and amortization was speculative, at war with actual experience and plainly excessive, because the undisputed evidence shows that such calculations and estimates were based upon a study of the appellee's history, its past experience and its probable future requirements for depreciation, depletion and amortization.

[fol. 94]

50

The evidence showing that the calculations of appellee's witnesses as to the annual sum which should be accrued for depreciation, depletion and amortization were based upon the history of appellee, its past experience and future requirements, it was error for the Honorable Court of Civil Appeals to hold that such evidence was contrary to the experience of the company and of no probative force as a matter of law.

51

The evidence showing that the appellants' estimates for reserve accruals to provide for depreciation and amortization did not include any allowance for the depletion of gas reserves, or the depreciation and amortization of appellee's property in Oklahoma that is used in the production and transmission of gas to points in Texas and certain pipe lines located in Texas, and that same was inadequate to meet the future requirements of the appellee for removals, abandonments, replacements, depletion and amortization, the Honorable Court of Civil Appeals erred in holding that appellants' estimates were adequate and that the commission's order was shown thereby to be just, reasonable and valid.

52

The evidence showing that the commission's allowance for annual reserve accruals to provide for depreciation and [fol. 95] amortization was computed on a sinking fund basis

which required the existence and use of a sum in excess of \$5,000,000.00 in said reserve account at the date of inquiry, and which allowance was admittedly insufficient for the future requirements of appellee without the use of said credit balance in the reserve account, the Honorable Court of Civil Appeals erred in holding that said allowance would be adequate for future requirements and that the order of the commission based thereon was just, reasonable and valid, such holding denying to appellee the right to earn a reasonable return on the fair value of its property used in the public service, in violation of appellee's rights under the Texas and National Constitutions.

53

The court erred in holding that the depreciation allowance of appellee's experts was speculative, at war with the actual experience of the company and plainly excessive, because said finding of fact is a finding based on conflicting testimony and on the weight to be given to the testimony of the witnesses and the credibility of the witnesses, all of which matters are matters for the determination of the jury and not for the determination of this court, and which this court has no power or authority to determine.

[fol. 96]

56

There being no evidence establishing or showing that \$50,000.00 per annum would be a sufficient sum to allow appellee for Federal Income taxes, the Honorable Court of Civil Appeals erred in so finding.

57

The undisputed evidence showing that appellee actually expended in acquiring or attempting to acquire new business by way of advertising, solicitation and otherwise, the following sums, to-wit: \$126,125.98 in 1931, \$87,528.94 in 1932, \$99,793.94 in 1933, and \$101,308.68 during the twelve months' period ending March 31, 1934, and the undisputed evidence further showing that such expense was incurred in the exercise of the best judgment of appellee, and there being no evidence of inefficiency or improvidence

on the part of the appellee's management, the Honorable Court of Civil Appeals erred in holding that said expense was not supported by the quantum and character of evidence required in order for it to be allowed as an expense of operation in fixing appellee's rates.

58

The undisputed evidence showing that the amount charged by appellee as an expense of operation for gas leases acquired but cancelled and surrendered was the actual amount paid for such leases as reflected on the books of appellee, and the undisputed evidence further showing that such expenditures were made by appellee in the exercise of the best judgment of its management, and there being no evidence of inefficiency or improvidence on the part of appellee's management, the Honorable Court of Civil Appeals erred in holding that said expense was not supported by the quantum and character of evidence required in order for it to be allowed as an expense of operation in fixing appellee's rates, such holding denying to appellee [fol. 98] its rights under the 14th Amendment to the Federal Constitution.

59

There being no evidence of inefficiency or improvidence on the part of appellee's management, the Honorable Court of Civil Appeals erred in holding that it was proper to eliminate as an expense of operation in the computation of appellee's rates, the sums actually expended by appellee annually in the due course of its business for gas production expense, drilling and tool expense, and dry hole expense, such holding denying to appellee its rights under the 14th Amendment to the Federal Constitution.

60

The Honorable Court of Civil Appeals erred in holding that, "The reproduction cost new value, as determined in the instant case, allows for all overhead expense, which together with the reasonable operating expenses allowed, fully compensate appellee for all development costs which have been incurred, and are ample to cover items entering into and forming a part of what is referred to as 'going concern value'."

The undisputed facts showing that appellee began operations in 1909 as a small concern with comparatively few consumers, and that as of the date of this inquiry it was [fol. 99] rendering an efficient and dependable natural gas service to distributing companies who in turn serve 202,882 customers who are well educated in the use of natural gas, that appellee's said business has been gradually built up over a long period of years and is adequate to give appellee a reasonable return on the fair value of its property under rates which are reasonable to the public, the Honorable Court of Civil Appeals erred in holding that it was improper to allow for going concern value under the facts of the instant case, such holding denying to appellee its rights under the 14th Amendment to the Federal Constitution.

The Honorable Court of Civil Appeals erred in finding and holding that appellee offered no evidence which even tended to show that a six (6%) per cent rate of return would confiscate its property, or was unreasonable or unjust. - /

There being ample evidence showing that a return of from eight to ten per cent would be just, fair and reasonable for appellee to earn, the court erred in holding that as a matter of law the trial court and jury were without power to say that a six (6%) per cent return is unjust and unreasonable as to appellee.

[fol. 100]

The court having found that there was evidence that an eight or ten per cent per annum net return would be fair and reasonable for appellee to earn and that there was a difference of opinion among the witnesses who testified on that point, erred in holding that, "This evidence merely presented the difference of opinion of experts . . . and their opinions cannot be substituted for the finding of the commission that a six (6%) per cent rate of return was fair and reasonable."

The appellee having alleged that the order of the Railroad Commission was unjust and unreasonable as to it and

confiscatory of its property, and appellee's evidence having clearly shown that the rate prescribed in the commission's order would not afford appellee the net return of 6% per annum on the fair value of its public service property which the commission found was the minimum return to which appellee is entitled, the court erred in holding that because there was a conflict in the evidence and that the appellants' evidence sustained the commission's order the trial court was required as a matter of law to sustain appellants' motion for an instructed verdict and that he erred in not doing so.

66

The appellants having eliminated from their estimates of the fair value of appellee's property, property actually used [fol. 101] and useful in supplying natural gas to the points served by appellee in Texas, and having eliminated large sums from appellee's expenses of operation and having added to appellee's operating revenues more than \$300,000.00 for temperature adjustments and which money appellee never received, the Honorable Court of Civil Appeals in holding that appellants' evidence was sufficient, as a matter of law, to establish the validity of the commission's said order deprived appellee of the right to earn a reasonable return on the fair value of its property used and useful in the public service, and the right to manage its property and business in violation of appellee's rights under the 14th Amendment to the Constitution of the United States and said holding is therefore erroneous.

67

The court erred in approving the segregation of property testified to by appellants' witnesses, such segregation being based upon the value of property located in Texas only, excepting appellee's production system properties and certain pipe lines, because such evaluation failed to give any consideration to or value appellee's properties located in Oklahoma and actually and necessarily used and useful in transporting to Texas gas purchased or produced in Oklahoma, and to the extent that appellee's properties located in Oklahoma are used in the Texas public service, appellee, under [fol. 102] the holding of the court, is denied just compensation for such use, in violation of its rights under Section 17,

Article I of the Texas Constitution and the 14th Amendment to the Federal Constitution.

.

[fol. 103]

72

The trial court having instructed the jury that before it could find that the order of the Railroad Commission was unreasonable and unjust to defendant, it must so appear by clear and satisfactory evidence, and the jury having found that such order was unjust and unreasonable to defendant, and said jury finding, as well as the judgment of the trial [fol. 104] court rendered thereon, being supported by competent evidence, the Honorable Court of Civil Appeals erred in reversing the cause and rendering judgment for appellants.

.

74

The court erred in holding that "where, as in the instant case, the evidence is conflicting and the conclusion to be drawn therefrom in respect of this or that item uncertain or speculative the court should not interfere with gas rates in advance of any actual experience of the practical result of such new rates."

75

The court erred in holding that "Manifestly this evidence in absence of actual experience under the rate, does not meet the quantum and character of proof necessary to set aside the rate order as being confiscatory or unreasonable and unjust as to appellee."

[fol. 105]

76

The court erred in holding that "we are clear in the view that where a state commission fixes a utility rate so as to allow a 6% rate of return on the property used in the public service, the courts will not, prior to a fair test of such rate, declare same void unless the evidence establishes that it is confiscatory or invalid as a matter of law."

77

The Honorable Court of Civil Appeals erred in holding that the reduction of eight cents per thousand cubic feet in

the city gate pipe line charge ordered by the Railroad Commission could and should be passed on to the ultimate consumers for the reason that the several distributing companies to whom appellee supplies gas are not parties to this suit and there is no evidence in this case upon which such issue can be considered and determined, there being no evidence in this case of the property values and earnings of any of the distributing companies, either under the existing rates or any lesser rates, and this is true even though appellee and its distributing companies be regarded as one common concern, for as much as a utility such as appellee is entitled to a reasonable return on every branch and part of its property, whether it be a transmission or distribution system.

78

The court erred in holding that the Railroad Commission [fol. 106] of Texas may without further notice or hearing require the distributing companies purchasing gas from appellee to cease paying appellee a rate for gas purchased by them in excess of 32¢.

79

The court erred in holding that "If the 32¢ rate is declared valid herein appellee can have no further interest in any order the commission may make with regard to requiring the various distributing companies to pay in excess of such rate and to pass the eight (8¢) cent reduction on to the ultimate consumer," because under the holding of the court that corporate entities are to be ignored and that appellee is to be deemed to be engaged in the business of distributing gas locally to domestic consumers, appellee has a most vital interest in law and in fact, in the burner tip rates.

80

The Railroad Commission having found and held that appellee's property and business used and useful in the public service, is an integrated system, and the Honorable Court of Civil Appeals having found and held that appellee is not engaged in interstate commerce in transporting and supplying natural gas at any of the cities and towns served by it in the State of Texas, and appellee having introduced evidence showing that the order of the Commission would not permit it to receive, in any of the years involved or in

[fol. 107] the future, as much as a six (6%) per cent return on the fair value of its public service property, and such evidence being uncontradicted and undisputed by any evidence offered by appellants, the Honorable Court of Civil Appeals erred in holding that the evidence was insufficient as a matter of law to make a jury issue as to the unjustness and unreasonableness of the commission's order and that the trial court erred in not granting appellants' motion for an instructed verdict.

81

The Honorable Court of Civil Appeals having held that appellee is not engaged in the transportation of gas in interstate commerce and that the gas which appellee produces in Oklahoma and transports and delivers at the city gates of cities and towns in Texas is intrastate commerce, and appellee having introduced uncontradicted, competent evidence showing that the rate prescribed in the order of the Railroad Commission would not permit it to receive an annual return of six (6%) per cent but a much lesser return on the fair value of appellee's public service property, the Honorable Court of Civil Appeals erred in holding that appellee had failed as a matter of law in showing that the order of the Railroad Commission was unjust and unreasonable as to it because appellee failed to make a [fol. 108] proper segregation between its intrastate and interstate property and business.

82

The Honorable Court of Civil Appeals having held that the order of the Railroad Commission was prima facie valid and said order being based on an evaluation of appellee's system as a whole and the income from and expenses of the entire property, erred in holding that appellee did not make out a case for the jury by showing that if said order had been in effect for the years in question appellee would not have earned a six (6%) per cent return on the property as a whole even on the commission's rate base, depreciation allowance and operating expenses, appellee's evidence being the only evidence as to said property and business as a whole.

83

The court having held that because of appellee's failure to make a proper segregation of interstate and intrastate

properties, appellee did not adduce the quantum and character of proof necessary to establish the invalidity of the rate complained of, erred in not affirming the judgment of the trial court inasmuch as the record conclusively shows that the commission based its said order upon a consideration of appellee's interstate property and business.

[fol. 109]

84

The court erred in reversing and rendering this case, because the issue raised by appellants in their second amended original petition was the reasonableness of the rate promulgated by the commission for gas delivered at the city gates of the various towns and cities served by appellee in intrastate commerce and this court's holding that appellee was not engaged in interstate commerce in Texas has deprived appellee of an opportunity to develop facts in the case under the law as it has been announced for the first time by this decision.

85

The court erred in holding that it was necessary to allocate or segregate the property used in Texas in order to determine the fair value of the property used in the Texas public service because if appellee was not engaged in interstate commerce there was no occasion or necessity for any segregation of property.

86

The court erred in holding that the testimony of appellee's witnesses based upon a segregation as between property used in interstate and intrastate commerce proved nothing material in this case.

87

The court erred in holding "that appellee offered no other proof upon a correct segregation or allocation of the [fols. 110-111] property and the trial court erred in refusing the commission's motion for an instructed verdict and for judgment declaring the rate order appealed from to be valid in every respect."

88

The court erred in holding that "the burden was upon appellee to show by clear and satisfactory evidence a proper segregation of interstate and intrastate properties and

business, and to show the value of the property employed in intrastate business or commerce and the compensation it would receive under the rate complained of upon such valuation."

89

The court erred in holding that "having failed to make a proper segregation of interstate and intrastate properties, appellee did not adduce the quantum and character of proof necessary to establish the invalidity of the rate as being confiscatory, or unreasonable and unjust."

.

[fol. 112]

93

The court erred in reversing and rendering this case in favor of appellants and against the appellee in view of its holding that the issue of confiscation was not submitted to the jury inasmuch as appellee plead that its property would be confiscated through the order of the commission and proved such confiscation if its testimony were accepted as the more credible and entitled to the most weight, and requested that the issue be submitted by the trial court, and excepted and objected to the failure and refusal of the trial court to submit the same; and if it be true as held by this court that the issue was not submitted, then by reversing and rendering the case this court has deprived appellee of the right to a judicial determination of the question of confiscation inasmuch as this court has no power or authority under the Texas laws as an appellate court to determine that issue.

94

The court erred in giving any consideration to the corporate relation between Lone Star Gas Company, appellee, and various affiliated distributing companies in connection with its determination of the issue of interstate commerce.

95

Inasmuch as the commission treated appellee and the affiliated distributing companies as separate and distinct corporations engaged in different kinds of business and predicated its opinion and order on a recognition of those

facts, the court erred in holding and in basing its judgment in whole or in part on the holding that "when viewed in the light of the facts and the aforesaid rule it becomes apparent that appellee and its affiliated distributing companies were engaged in an integrated but single business enterprise of producing, purchasing, transporting, selling and delivering natural gas for domestic or other use to the ultimate consumer", thus deciding this case on an entirely different theory from that upon which the opinion and order of the commission was based.

96

The court erred in its holding stated in the preceding paragraph of this motion because irrespective of the theory upon which the commission proceeded in its hearing, the facts and circumstances appearing of record and relied [fol. 114] upon by the court, if true, are not sufficient in law to justify disregarding the corporate existence of the various companies which are in law separate, distinct corporations, one of which is engaged in the transportation and sale of gas at wholesale and others of which are engaged in the business of selling and distributing gas at retail.

97

The court erred in holding that "by permitting or recognizing such intercorporate set-up the Texas corporations have, considering their entire operations as a whole, created a single and integrated business enterprise."

98

The court erred in holding that with respect to the jurisdiction of the commission to regulate and control appellee's business and particularly for the purpose of fixing the rates for which it might sell gas to the public in Texas, the corporation must be regarded as being engaged in the single business enterprise of producing, purchasing, transporting, delivering and selling natural gas to the ultimate consumer or user in Texas, because there is no legal justification for ignoring the actual corporate existence of the corporations in question and because recognition of the existence of the corporations as separate and distinct entities in no way operates to impair or defeat the jurisdiction of the Railroad Commission.

The court erred in holding "the fact that separate corporate entities were formed which represent different departments of the integrated but single business enterprise does not affect the question, because the court must look beyond the corporate form to the purpose of the unified organization and to the officials who are identified with that purpose" because there is no lawful justification for ignoring the separate corporate existence of the various companies.

The court erred in holding that to permit Texas corporations to dispose of their capital stock and form a separate entity of their own and to surrender the management and control of their business to the holding corporation which has no permit to do business in Texas, would enable them to defeat the jurisdiction of the commission over them as Texas public utilities, because as a matter of law the Railroad Commission has the same power and jurisdiction over the business now carried on by appellee and the separate, though affiliated corporations purchasing gas from it, considering the corporations as separate and distinct entities, as it would have if the corporate entities be ignored and the distributing companies and the pipe line companies treated as simply departments of one corporation.

The court erred in holding that "it is conceded that the [fol. 116] commission after a hearing at which the reasonableness of the city gate rate charged by the appellee for gas was inquired into could have required the various distributing companies to pay appellee a rate not in excess of 32¢ even though the gas sold and delivered by appellee moved in interstate commerce to the city gate."

The court erred in holding that "it would seem from these recitations of facts and circumstances that the commission consolidated all the appeals and cases pending before it in which the determination of the city gate rate charged by the appellee for gas was necessarily involved

as a step preliminary to reviewing or fixing the local or burner tip rates for gas", because such conclusion is not substantiated by the record in this case, it appearing that the investigation in question was a separate, distinct investigation of appellee which the commission throughout the investigation treated as a separate and distinct corporate entity engaged in a different kind and character of business from that engaged in by the distributing companies.

104

The court erred in holding that the transportation of gas from Wheeler County through the State of Oklahoma [fol. 117] and through Texas under the facts and circumstances shown in the record is not interstate commerce as a matter of fact.

105

The court erred in holding that "except for the right to authorize the construction of the pipe line within its boundary the State of Oklahoma has no concern whatever with the transaction", and in basing its judgment in whole or in part thereon.

106

The court erred in holding and in giving any consideration to the holding that "it (the town of Hollis, Oklahoma) could have been as well served by a direct pipe line from Texas to it and such service is in no manner affected by the rate order in suit."

107

The court erred in holding and in basing its judgment in whole or in part thereon that "but one practical conception can be drawn from the whole transaction involved; that is, the gas produced in Texas and intended to be delivered, sold and used in Texas is intrastate commerce."

108

The court erred in holding that "the mere fact that [fol. 118] appellee has selected a route through Oklahoma as an aid to the transportation of its Texas business cannot work a change in the nature of the business, nor does it affect the character of the business."

109

The court erred in holding that the transportation of gas through Oklahoma is merely a method of delivery and is a negligible circumstance in determining the interstate commerce issue.

110

The court erred in holding that "neither the Texas Statutes nor the rate order interfere in any manner with the transportation of gas from Texas through Oklahoma and back into Texas."

.

112

The court erred in holding that "this circuitous route of delivery of gas through Oklahoma cannot and does not affect the exercise of the police power of Texas to make or [fol. 119] fix reasonable rates for such gas sold to its citizens."

113

The court erred in holding that the facts show that the gas produced or purchased by appellee in Oklahoma and transported by its pipe lines to Texas does not move in interstate commerce when it reaches the city gates for delivery.

114

The court erred in holding that the interstate transportation of gas purchased or produced by appellee in Oklahoma ceased when such gas passed through appellee's gasoline plant in Gainesville, Texas.

115

The court erred in holding and in giving any consideration to the holding that "the amount of Oklahoma gas as a whole is small, and as divided and redivided before delivery to the various city gates, its amount is negligible in comparison with the amount of the Texas gas with which it is mixed or commingled.

116

The court erred in holding that the composition of appellee's gas purchased or produced in Oklahoma and trans-

[fol. 120] ported into Texas is and must be changed by extracting hydrocarbons and volatile gasoline before it is ready for delivery and use by the consumer, and in giving such consideration to such holding.

117

The court erred in holding that "thus the state commission may validly, by the indirect process of prescribing reasonable rates for local distributing companies, control and fix the city gate rate for gas moved in interstate commerce.

118

The court erred in holding that under the circumstances in this case, the amount of the rate or price to be charged for gas is primarily for the determination of the state in which the gas is consumed, and in giving any consideration to such holding.

119

The court erred in failing to hold that appellee was engaged in interstate commerce in transporting and selling gas purchased or produced by it in Wheeler County, Texas, and transported through Oklahoma and thence back into the State of Texas up to the city gates where delivery is made.

120

The court erred in holding that "where the rates are [fol. 121] reasonable and are fixed according to some uniform, fair and practical standard, they constitute no burden on interstate commerce" and in giving any consideration to such holding as applied to gate rates under the facts and circumstances in this case.

121

The court erred in holding that "it is within the police power of the state to fix reasonable rates for which gas may be sold to its citizens, even though such rates may indirectly or incidentally affect the interstate transportation of such gas, or may so affect interstate commerce in the same", and in giving any consideration to such holding.

122

The court erred in holding that the rate order in this suit does not in any manner interfere with, restrain or burden the free transportation of gas between Texas and Oklahoma.

123

The court erred in holding that "absent legislation by Congress, and since the Interstate Commerce Act expressly excepted the regulation of transportation of 'natural or artificial gas by pipe lines' from the jurisdiction of the Interstate Commerce Commission, the State Commission in the exercise of the police power of the State to regulate [fol. 122] and control public gas utilities had the power to fix reasonable rates for gas delivered by appellee to distributing companies at the city gate, although interstate commerce may be indirectly or incidentally affected thereby."

124

The court erred in holding that because the 32¢ gate rate was reasonable it did not operate to obstruct or interfere with interstate commerce because the question of whether or not the Railroad Commission of Texas can regulate the gate rate to be charged for interstate gas is a question of power and not of the reasonableness of the particular rate.

125

The Honorable Court of Civil Appeals erred in failing to hold that appellee is engaged in interstate commerce at the city gates of various towns and cities in Texas and that the order of the Railroad Commission prohibiting appellee from collecting in excess of 32¢ for all gas sold and delivered by it to various distributing companies at the city gates including gas transported and delivered in interstate commerce directly interfered with and constituted a burden upon interstate commerce and appellee's right to engage therein in violation of the commerce clause of the Constitution of the United States and in not holding the order of the Railroad Commission void and unenforceable [fol. 123] insofar as appellant sought to enforce the same as against such gas transported and sold by appellee in interstate commerce.

The court erred in failing and refusing to sustain appellee's cross-assignment of error No. 2 as follows:

"The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from the statement of the Railroad Commission of Texas attached to the opinion and order of the said commission, marked Exhibit "a" and referred to in plaintiffs' Second Amended Original Petition, that defendant was engaged in the production and sale at wholesale of natural gas, engaging in both interstate and intrastate commerce in the sale of gas to some 300 cities and towns in the State of Oklahoma and Texas. The order of the Railroad Commission undertook to fix a reasonable rate for all the gas supplied by the defendant to the various distributing companies. A part of the gas being delivered by the defendant at the city gates of various towns and cities in Texas at the time of the investigation of the Railroad Commission, and at all times in question was being transported uninterruptedly through defendant's high-pressure pipe lines from and through the State of Oklahoma into the State of Texas. The business of transporting natural gas uninterruptedly through defendant's high-pressure pipe lines from the State of Oklahoma into the State of Texas, and from the State of Texas through Oklahoma and back into the State of Texas is national in character and constitutes interstate commerce and transportation, and also constitutes a substantial portion of defendant's entire natural gas business. The order of the Railroad Commission was intended to and did, in fact, prescribe the rate to be charged for all gas sold by the defendant, including interstate gas, and thereby prevented the defendant from charging and receiving the price for interstate gas which it was charging and receiving, and, therefore, [fols. 124-125] was a burden upon and a direct regulation of interstate commerce. The order of the Railroad Commission therefore was void in so far as it related to interstate commerce, and gas sold by the defendant moving in interstate commerce under the Commerce Clause of the Federal Constitution, and, being void in part, and being

indivisible in character, it was void in its entirety and could not be enforced in whole or in part by the plaintiffs in this suit."

127

The Honorable Court of Civil Appeals erred in finding as a fact that all of the gas transported by appellee in interstate commerce is commingled with intrastate gas before delivery at the city gates.

* * * * *

[fol. 126]

133

The court erred in holding that a considerable amount of gas purchased or produced in Oklahoma and transported into Texas is run through and stored in appellee's wells at the extraction plants in Texas for future use as needed.

* * * * *

[fol. 127]

136-A

The court erred in holding that about 17% of the total amount of gas supplied by appellee is purchased or produced by it in Wheeler County, Texas.

137

The court erred in holding that the gas reserves in Texas are more than sufficient to supply all Texas' needs and that the gas supply of Oklahoma would likewise supply all of its needs.

* * * * *

[fol. 129]

143

The court erred in failing and refusing to sustain appellee's first cross-assignment of error as follows:

"The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested. (Defendant's Cross-Assignment of Error No. 14, Transcript 587)."

The court erred in failing and refusing to sustain appellee's Fourth Cross-Assignment of Error as follows:

"The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from the undisputed evidence, as a matter of law, that the rate of 32 cents prescribed by the commission in its order of September 13, 1933, was unjust, unreasonable and confiscatory in this, that said rate was based on a determination of the value of defendant's public service property as of December 31, 1931, considering labor and material prices substantially less than those prevailing on the date of the inquiry; and [fol. 130] even though it be assumed that the Railroad Commission correctly valued such property as of December 31, 1931, nevertheless, if effect be given to such increased labor and material prices, the Railroad Commission's valuation would be materially increased as of the date of the inquiry; and if said rate of 32 cents had been in effect during 1931 and subsequent accounting periods, defendant would not have earned and would not have been able to earn anything like the minimum net rate of return to which the commission found it was entitled upon the fair value of its public service property at the time of the inquiry.

"Wherefore, defendant was entitled to an instructed verdict and to judgment based thereon. (Defendant's Cross-Assignment of Error No. 16, Transcript 588.)"

The court erred in holding that the rate fixed by the Commission was presumptively just and reasonable and non-confiscatory as applied to appellee's so-called Texas or intra-state business inasmuch as no presumption of validity attends the rate order not supported by any evidence and inasmuch as it appeared from the undisputed evidence that the rate fixed by the commission was based upon an valuation of appellee's properties both in Texas and in Oklahoma and a determination of gross revenues, expenses, etc. in connection with the operation of appellee's entire pipe

line properties both in Oklahoma and in Texas, and not upon an evaluation of the appellee's properties physically located in the State of Texas and a determination of grass revenues, expenses, etc. applicable to the sale of gas in Texas.

[fols. 131-132]

146

The court erred in giving any effect or consideration to the order of the commission and in predicating its judgment in whole or in part on the presumptive validity of such order in so far as the order is applied to the so-called Texas business of the defendant inasmuch as the order is void as so applied, because it is not supported by any evidence before the commission based upon a segregation of defendant's properties as between that situated in Oklahoma and Texas, and a segregation of revenues and expenses allocable to appellee's business in the respective states.

.

[fol. 133]

153

The court erred in eliminating as an expense of operation the expenses actually charged by appellee for cancelled and surrendered leases and in finding and holding in respect thereto that "in view of its admitted large gas reserves, which will last for 40 years, and in view of the fact that it is a matter of judicial knowledge that gas by the multiplied millions of cubic feet is being wasted daily because of the lack of a market, we think these large charges are unjustified."

154

The court erred in holding in effect that appellants' estimates for depreciation and amortization reserve accruals [fol. 134] were sufficient to show that the commission's order was just, reasonable and valid in view of the undisputed evidence showing that appellants' estimates made no allowance for the depletion of appellee's wasting assets (gas reserves) and made no allowance for depreciation and amortization on a part of appellee's pipe line situated in Texas, nor on any of appellee's property in Oklahoma that is used and useful in producing and transporting gas to points in Texas for the reason that such holding takes appellee's property for public use without just compensa-

tion in violation of its rights under the 14th Amendment to the Constitution of the United States.

* * * * *

156

The Honorable Court of Civil Appeals erred in failing to give any consideration to appellee's testimony respecting the value of its public service property located both in Texas and in Oklahoma and its income and expenses allocable thereto.

* * * * *

[fol. 135]

158

The judgment of the Honorable Court of Civil Appeals herein in affirming the order of the Railroad Commission which was declared to be unjust, unreasonable and invalid by the District Court, takes appellee's property without due process of law and without affording to appellee an opportunity to earn a reasonable return upon the fair value of its property used in the public service contrary to appellee's right under the 14th Amendment to the Federal Constitution in so far as said judgment approves and adopts the estimates of appellants' witnesses as to the fair value of appellee's property used in the public service.

159

The judgment of the Honorable Court of Civil Appeals herein affirming the order of the Railroad Commission which was declared to be unjust, unreasonable and invalid by the District Court, takes appellee's property without due process of law and without affording to appellee an opportunity to earn a reasonable return upon the fair value of its property used in the public service and denies to [fol. 136] appellee the equal protection of the law in violation of appellee's rights under the 14th Amendment to the Federal Constitution in so far as said judgment fixes the operating expenses of appellee or approves the method of fixing such operating expenses by the witnesses for appellants.

160

The judgment of the Honorable Court of Civil Appeals herein in affirming the order of the Railroad Commission

which was declared to be unjust, unreasonable and invalid by the District Court, takes appellee's property without due process of law and without affording to appellee an opportunity to earn a reasonable return upon the fair value of its property used in the public service and denies to appellee the equal protection of the law in violation of appellee's rights under the 14th Amendment to the Federal Constitution in so far as said judgment holds that 6% per annum is a reasonable rate of return to be allowed appellee.

161

The judgment of the Honorable Court of Civil Appeals in disapproving appellee's present gate rate and in approving and holding as valid the rate prescribed in the order of the Railroad Commission takes appellee's property without due process of law and denies to appellee the equal [fol. 137] protection of the law and denies to appellee the opportunity of earning a reasonable return upon the fair value of its public service property all in violation of appellee's right under the 14th Amendment to the Federal Constitution.

162

The judgment of the Honorable Court of Civil Appeals herein in affirming the order of the Railroad Commission which was declared to be unjust, unreasonable and invalid by the District Court, takes appellee's property without due process of law and without affording to appellee an opportunity to earn a reasonable return upon the fair value of its property used in the public service and denies to appellee the equal protection of the law in violation of appellee's rights under the 14th Amendment to the Federal Constitution in so far as said judgment approves the allowance made by the appellants' witnesses for annual accruals to a reserve for depreciation and amortization.

163

The judgment of the Honorable Court of Civil Appeals herein in affirming the order of the Railroad Commission which was declared to be unjust, unreasonable and invalid by the District Court, takes appellee's property without due process of law and without affording to appellee an [fol. 138] opportunity to earn a reasonable return upon the

fair value of its property used in the public service and denies to appellee the equal protection of the law in violation of appellee's rights under the 14th Amendment to the Federal Constitution in so far as said judgment approves the inclusion of approximately \$334,000.00 per annum as operating income on account of temperature adjustments which appellee is shown by the evidence in this case never to have received.

The residences and names of counsels for appellants are as follows: William McCraw, Attorney General of Texas, Austin, Texas; Alfred M. Scott, Assistant Attorney General of Texas, Austin, Texas; A. R. Stout, Houston, Texas; F. L. Kuykendall, Chief Examiner, Gas Utilities Division, Railroad Commission of Texas, Austin, Texas.

[fol. 139] IN COURT OF CIVIL APPEALS OF TEXAS

[Title omitted]

OPINION ON APPELLEE'S MOTION FOR REHEARING—Filed
September 25, 1935

On motion for a rehearing appellee makes the claim that the record does not sustain some of our findings of fact. Most of the asserted discrepancies relate to the valuation of the property used in the public service, or to alleged necessary operating expenses. We held that as a matter of law appellee failed to establish by clear and satisfactory evidence the ultimate fact issue, to-wit: Whether the rate fixed by the Commission was so low as not to afford a reasonable return on the fair value of the property used in the Texas public service. Appellee was afforded a seven months hearing before the Commission and a three months trial on appeal to the Court. It made no segregation as between its Texas and Oklahoma properties and opera-
[fol. 140] tions; and did not prove the fair value of the property used in the Texas public service. The question of the value of such property determines the reasonableness of the rate and probably, in the ultimate analysis, adequacy of service and principles of financing. Valuation of such public service property is in the main a matter of estimate or opinion, and closely resembles discretion as regards the finding of value by an administrative commission. In

any event, a scientific or statutory standard of absolute value is unattainable; and because of this uncertainty of value, except where the evidence clearly shows gross over or under valuation, or mistake, inequality or fraud in the appraisal, the finding of value by an administrative commission is generally given finality. Especially is this the rule in absence of an actual test under the new rate. In addition to the authorities cited in the original opinion, see the following: People v. Board of Assessors, 39 N. Y. 81 Taylor v. L. & N. R. Co., 88 Fed. 350; Chicago v. Bur-tice, 24 Ill., 489; State Railroad Tax Case, 92 U. S. 575; Hilton v. Meritt, 110 U. S. 97; People v. State Board of Tax Com., 196 N. Y. 39.

Motion overruled.

(Signed) M. B. Blair, Associate Justice.

Overruled.

[File endorsement omitted.]

[fol. 141] IN COURT OF CIVIL APPEALS OF TEXAS

[Title omitted]

ORDER OVERRULING APPELLEE'S MOTION FOR REHEARING—
September 25, 1935

Motion of Appellee for Rehearing

Motion is overruled.

(Opinion by Associate Justice Blair).

[fol. 142] IN SUPREME COURT OF TEXAS

On Application for Writ of Error

Application No. 21,600

LONE STAR GAS COMPANY, Plaintiff in Error,

vs.

THE STATE OF TEXAS et al., Defendants in Error

Entry on the Application Docket: Travis County, Third District. Application No. 21,600, Lone Star Gas Company vs. The State of Texas, et al.

Filed November 2, 1935. Refused October 7, 1936.
(Names of attorneys omitted.)

[fol. 143] IN SUPREME COURT OF TEXAS

[Title omitted]

APPLICATION FOR WRIT OF ERROR—Filed November 2, 1935
To The Honorable The Supreme Court of Texas:

Lone Star Gas Company, a corporation, being the appellee in a certain cause pending in the Court of Civil Appeals in and for the Third Supreme Judicial District of Texas, at Austin, Texas, Number 8238 on the docket of said Court and entitled thereon State of Texas, et al., Appellants, vs. Lone Star Gas Company, Appellee, comes now and complaining of the State of Texas, the Railroad Commission of Texas and the members thereof, Ernest O. Thompson, Lon A. Smith and C. V. Terrell, and of James V. Allred, former Attorney General of Texas, a party to this cause, all being appellants in said cause, and of William McCraw, now Attorney General of Texas; and said Lone Star Gas Company respectfully applies to this Honorable Court to issue its writ of error in this cause directed to the Court of Civil Appeals in and for the Third Supreme Judicial District of Texas, at Austin, Texas, to the end that [fol. 144] this case may be removed from said Court of Civil Appeals to this Court and the record and proceedings herein may be fully reviewed by this Court and the judgment of the said Court of Civil Appeals rendered herein may be reversed and that of the District Court affirmed; and so that this plaintiff in error may be accorded any and all other relief to which it may be entitled under the law.

The errors hereinafter assigned were all duly assigned and presented in a motion for rehearing filed by plaintiff in error in said Court of Civil Appeals within the time required by law and overruled by that Court on, to-wit, the 25th day of September, 1935.

For convenience and to prevent confusion the parties hereto will be referred to as they appeared and were designated in the district court; the defendants in error as plaintiffs and the plaintiff in error as defendant.

I

Introductory Statement of the Nature and Result of the Suit

This suit involves the validity of an order of the Railroad Commission of Texas prescribing maximum rates to

be charged and collected by Lone Star Gas Company for gas sold by it wholesale to distributing companies operating in various towns and cities in the State of Texas and the power of the Commission and the State to enforce same. The order of the Railroad Commission in question reduced Lone Star Gas Company's prevailing city gate rate 20%, and, if enforced, will result in a loss in its net earnings, on the basis of the Company's past experience, [fol. 145] exceeding \$1,000,000.00 annually.

Upon a trial of the case in the District Court of Travis County, 53rd Judicial District, a jury found that the order of the Railroad Commission under attack was unjust and unreasonable, and a judgment in favor of the Company enjoining the enforcement of the order was entered on the verdict. The Court of Civil Appeals reversed and rendered the judgment of the District Court.

A historical statement of the progress of the litigation is essential. In giving it we will be as brief as the nature of the suit permits.

Various phases of the controversy have been considered by the Railroad Commission of Texas; by the United States District Court for the Western District of Texas, Austin Division, by the 53rd Judicial District Court of Travis County, Texas, and by the Court of Civil Appeals for the Third Supreme Judicial District of Texas. It will be convenient to trace the development of the case from the time of the initiation of the investigation of Lone Star Gas Company's rates by the Railroad Commission of Texas, through the various courts.

1. Proceedings Before the Railroad Commission of Texas:

The defendant Lone Star Gas Company was incorporated under the laws of the State of Texas on June 4, 1909. Pursuant to its corporate powers, defendant acquired and now owns, holds and operates not only pipe lines, compressor stations and other equipment necessary for the transportation and sale of natural gas, but also owns and operates gas leases, gas wells, well and drilling equipment and other property used and useful as a part of its gas production system.

[fol. 146] Since the date of its incorporation defendant has been continuously engaged in carrying out its corporate purposes, and now operates approximately four thousand

miles of high pressure pipe lines, through and by means of which it transports natural gas to the city gates of some 300 cities and towns situated in the States of Oklahoma and Texas where it sells such gas in wholesale quantities to various natural gas distributing companies. The distributing companies then deliver the gas to the ultimate consumers through low pressure systems. The only exception to the above mentioned practice is the City of Fort Worth, wherein defendant also owns and operates the distributing system and delivers the gas to the ultimate consumer through low pressure mains.

The delivery and sale of the gas at the city gates to the distributing companies, as aforesaid, is governed by long term contracts between defendant and the distributing companies and the price is uniformly \$0.40 per thousand cubic feet, with negligible exceptions.

The defendant's pipe line system crosses the State line between Oklahoma and Texas eight times. Three of these lines transport gas from Oklahoma to Texas. Three of them transport gas from Texas to Oklahoma. Another line extends from the Shamrock Gas Field in Wheeler County, Texas, into Oklahoma and then runs south approximately parallel to the west line of Oklahoma, and then again crosses the State line, coming into Texas near Quanah, Texas. After this line reaches Texas it is tapped by a branch line running north into Oklahoma and serving various Oklahoma towns. The line carries, therefore, gas delivered both at Texas and Oklahoma towns.

On October 14, 1932, the Railroad Commission of Texas, in exercise of the power delegated to it by Title 102, and particularly Article 6050, et seq., of the Revised Civil Statutes of Texas for 1925, began an investigation of defendant's rates and charges for the purpose of determining a reasonable rate or price for the gas delivered by defendant at the city gates of the cities and towns served by it.

This investigation encompassed all of defendant's properties and business except the distributing business in the City of Fort Worth, Texas, and certain other non-public service operations which defendant was carrying on. After an extended hearing the Railroad Commission prepared certain findings of fact and an elaborate written opinion upon which it based and issued the following order dated September 13, 1933. (Book of Exhibits 7, page 3926).

2. Order of the Commission:

The Railroad Commission having instituted a proceeding upon its own motion inquiring into the rates charged by the Lone Star Gas Company for domestic gas sold to distributing companies at the city gate station, hereby finds as a fact that the rate of \$0.40 per thousand cubic feet as now charged by Lone Star Gas Company is unfair, unjust and unreasonable.

Basing its order on the foregoing finding of fact and on such other findings and statements of facts as are set out in the opinion next preceding this order, or in this order.

It is Ordered, Adjudged and Decreed that effective as of the next billing date the Lone Star Gas Company shall charge, bill and receive for domestic gas at the city gate from all distributing companies served by it, a rate not to exceed \$0.32 per thousand cubic feet.

It is Further Ordered, Adjudged and Decreed that a [fol. 148] rate not to exceed \$0.32 per thousand cubic feet at the city gate is hereby fixed, approved and promulgated and found and declared to be fair, just and reasonable and shall remain in force and effect until the Commission shall have otherwise determined, pursuant to other proceedings in respect to the fixing of city gate rates for domestic gas on said Lone Star Gas Company's lines.

It is Further Ordered, Adjudged and Decreed that this proceeding shall be kept open for such further orders as may be proper.

The foregoing opinion and order are hereby approved and ordered filed as the opinion and order of the Railroad Commission of Texas.

Dated at Austin, Texas, this 13th day of September, A. D., 1933.

It will be noted that the above order states that it is based upon the findings of fact contained in the order "and on such other findings and statements of fact as are set out in the opinion next preceding this order". The opinion "next preceding this order", and made a part of the order, contains elaborate findings of fact stating in detail how the Commission valued the defendant's property, what property was included in the valuation, what operating revenues were considered, and what expense items were allowed as proper deductions from the operating revenues.

The findings referred to include the following:

"The Lone Star Gas Company, a Texas corporation, is engaged in the production, transportation and sale at wholesale of natural gas, it operates an integrated pipe line system of approximately 4,000 miles and engages in both interstate and intrastate commerce in the selling of gas to some 300 cities and towns within the States of Oklahoma and Texas.

"The company's Texas properties and its Oklahoma properties constitute parts of an integrated operating system. For that reason we have considered the Oklahoma properties and operations and the effect thereof on the revenues and the expenditures within Texas. On this basis we have fixed a rate for application within the jurisdiction of Texas". (Book of Exhibits 7, page 3844). (Our italics.)

[fol. 149] Having made this finding, the Commission then proceeded to value the defendant's property as a whole and to consider its operating revenues and operating expenses as a whole.

The findings referred to also contain the following:

"We find 6 per cent to be the minimum fair rate of return and we find this rate to be applicable to the year 1931." (Book of Exhibits 7, page 3915).

3. Proceedings in the United States District Court:

On the 22nd day of September, 1933, defendant filed its bill of complaint in the United States District Court for the Western District of Texas at Austin and sought to temporarily and permanently enjoin the Railroad Commission, the individual members thereof, and the Attorney General of Texas, from enforcing the above mentioned order. It was alleged in the bill of complaint that said order would operate to confiscate the properties of defendant; would impair the obligations of defendant's contracts; and that it was unjust to defendant and otherwise offended against defendant's rights under the Constitution of the United States. (S. F. 24, Book of Exhibits 7, p. 3712).

On September 22, 1933, the said United States District Court issued a temporary restraining order as prayed for in defendant's said bill of complaint. (S. F. 25, Book of Exhibits 7, p. 3838).

After the issuance of the aforesaid restraining order, this suit was filed by the plaintiffs in the 53rd District Court of Travis County, Texas, in order to cast jurisdiction in that court under the provisions of Section 266 of the Judicial Code of the United States. (28 U. S. C. A., Sec. 380).

The 53rd District Court of Travis County, Texas, after the filing of plaintiffs' suit and pursuant to plaintiffs' [fol. 150] prayer and motion, made an order staying all proceedings having for their object the enforcement of the Railroad Commission's order against defendant. The plaintiffs were restrained and enjoined from instituting or prosecuting any proceedings against defendant under said order, or from attempting to enforce the duties, obligations, and requirements imposed upon defendant by said order; pending final determination of the issues in this suit. (Tr. 20-22.)

Thereafter, to-wit, on the 11th day of November, 1933, the said United States District Court, in conformity with what it deemed to be the proper procedure under Section 266 of the Judicial Code, entered an order staying the proceedings in that court until final determination of this cause. The Federal Court's decree in this connection recited in detail the provisions of the stay order issued by the State Court and referred to statements made in open court by plaintiffs' attorneys to the effect that the State of Texas, the Railroad Commission of Texas, and the Attorney General did not desire to, and would not enforce said order of the Railroad Commission, or collect penalties for violation thereof, at any times before the final determination of the suit in the 53rd District Court of Travis County, Texas; and the Railroad Commission of Texas and the individual members thereof and the Attorney General of the State of Texas and their successors in office, were restrained and enjoined from enforcing, or attempting to enforce, or from giving any effect to said order, at any time prior to final judgment in this suit, then pending in the 53rd District Court. (S. F. 21, Book of Exhibits 6, p. 3584; Tr. 20-25.)

[fol. 151] 4. Proceedings in the State District Court:

Plaintiffs' original petition herein sought to restrain defendant from charging and collecting for gas sold by it to the various distributing companies in excess of \$0.32 per thousand cubic feet. It will be seen from the order of the

Commission (page 5, *supra*) that the rate fixed therein by the Commission was made applicable to all gas sold and delivered at the various city gates; and plaintiffs sought to enforce the order as to all gas.

In the opinion of the Railroad Commission, upon which its order was based, it was recited that Lone Star Gas Company was engaged "in the production, transportation and sale, at wholesale, of natural gas, * * *" operating— "an integrated pipe line system of approximately 4,000 miles, * * *" and engaging "in both interstate and intrastate commerce in the selling of gas to some 300 cities and towns in the States of Oklahoma and Texas." (Tr. 19.) It was defendant's theory that the order of the Railroad Commission could not be enforced as against that part of its business which it contended was interstate in character, and the general demurrer contained in its original answer was, upon a hearing, sustained. (S. F. 341.)

Thereafter, plaintiffs in their first and second amended original petitions sought the enforcement of the Commission's order to prevent defendant from charging or collecting any rates at the city gates of the various towns and cities served by it in intrastate commerce in Texas, except those prescribed by the order of the Railroad Commission. (Tr. 15.) The case went to trial in the District Court on plaintiffs' second amended original petition, (Tr. 2, et seq.), and second supplemental petition, (Tr. 146, et seq.), and [fol. 152] on defendant's second amended original answer (Tr. 31, et seq.), and second supplemental answer, (Tr. 162, et seq.)

Defendant's pleadings raised issues as to whether or not the order of the Railroad Commission was unjust and unreasonable and confiscatory of its property in violation of its rights under the Fourteenth Amendment to the Constitution of the United States; as to the present fair value of its public service property; as to the proper amount of money which it was entitled to set aside annually in its depreciation reserve; as to what constituted a fair and reasonable rate of return, and other matters of fact going into the ultimate question at issue, to-wit: Would the enforcement of the order of the Railroad Commission operate unjustly and unreasonably on defendant and confiscate its property without due process of law? (Tr. 125.)

The pleadings of the parties raised the issue of whether defendant was engaged in interstate commerce in Texas, and, if so, whether the order of the Railroad Commission, if enforced, would result in a direct burden upon and interference with interstate commerce.

Upon the trial of the case before a jury, plaintiffs offered in evidence the order of the Railroad Commission, the stay order granted by the Federal Court, and after an agreed stipulation that defendant was charging \$0.40 per thousand cubic feet for gas instead of \$0.32 per thousand cubic feet, as required by the Railroad Commission's order, the plaintiffs rested their case. (S. F. 22.) The Commission's order, it will be noted, states that the order is based upon the findings contained in it and also on such "other findings and [fol. 153] statements of fact as are set out in the opinion next preceding this order." The opinion of the Commission thus referred to in the order contains a finding that the defendant is engaged in the "production, transportation and sale at wholesale of natural gas" and that it operates "an integrated pipe line system of approximately 4,000 miles and engages in both interstate and intrastate commerce in the selling of gas to some 300 cities and towns in the States of Oklahoma and Texas," and also that "the Company's Texas properties and its Oklahoma properties constitute parts of an integrated operating system." (Commission Opinion, p. 2.) The Commission's opinion also shows that as a basis for its order it undertook to make an over-all valuation of defendant's pipe line system as a unit.

Defendant's motion for an instructed verdict was duly and timely presented and overruled, and defendant then introduced evidence showing the actual cost of its public service properties in Texas and Oklahoma as reflected by its books, treating its properties as an "integrated system" as they had been dealt with by the Railroad Commission.

In this connection the defendant offered evidence to prove the reproduction cost new and present value of such properties; the annual sum which should be credited to a reserve for depreciation, depletion and/or amortization; the gross revenues, operating expenses and the amounts available for return during several accounting periods beginning with the twelve months ending December 31, 1931, and extending through the twelve months period ending April 30, 1934. Defendant also showed by proper accounting testimony the

amount available to it for return under the forty cent gate [fol. 154] rate and the amount that would have been available to it during each of the several accounting periods mentioned if the order of the Commission had been in effect. The testimony offered by defendant in that connection appears on pages 24 to 2356 of the Statement of Facts, and the documentary evidence in defendant's Exhibits 1 to 44.

After the introduction of the above mentioned evidence, defendant proceeded to show that it was engaged in both interstate and intrastate business in Texas, and in that connection it offered evidence to establish the value of its public service property used and useful in the conduct of its intrastate business and the revenues and expenses properly allocable thereto. (S. F. 2356-2542; Defendant's Exhibits 45 and 46.)

Plaintiffs then proceeded with their rebuttal testimony and offered evidence for the purpose of showing the value of defendant's public service property located in Texas and the revenues and expenses which they thought should be allocated to its Texas business, adopting in general simply a geographical division of its property and business as between Texas and Oklahoma. (S. F. 2542-3195; Plaintiffs' Exhibit 4 to 10.)

Plaintiffs' evidence disclosed the cost of defendant's public service properties located both in Texas and Oklahoma, but plaintiffs offered no evidence of the reproduction cost new of defendant's properties located both in Texas and Oklahoma (upon which basis the Railroad Commission of Texas had determined the present fair value of defendant's public service properties in fixing the rate promulgated by it). Plaintiffs in their evidence undertook to make a geographical segregation of the property and business of [fol. 155] the defendant between Oklahoma and Texas, treating all sales of gas made in Oklahoma as Oklahoma gas, regardless of the origin of the gas or gas supply; and applying the same treatment to the gas sold in Texas. (S. F. 2686-2688.) Abandoning, or at least disregarding, the manner in which the Railroad Commission had proceeded in valuing the property, and the findings of the Railroad Commission made the basis of its order, the plaintiffs in their testimony undertook to fix the value of the property located in Texas and, with the minor exceptions hereinafter pointed out, refused to give any consideration to the pro-

ducing and transporting properties located in Oklahoma and used by defendant in producing and transporting gas to Texas.

At the conclusion of all the evidence, both plaintiffs and defendant moved for an instructed verdict. These motions were overruled by the court, and the case having been submitted to the jury, a verdict was returned by the jury to the effect that the rate prescribed by the Railroad Commission was unjust and unreasonable as to the defendant Lone Star Gas Company. The judgment followed as a matter of course, decreeing that the order of the Commission fixing the rate hereinbefore mentioned was unjust, unreasonable, invalid and unenforceable. Plaintiffs were also denied relief in their suit against the defendant; and were permanently enjoined from enforcing the order in suit.

An appeal from the judgment was duly taken by plaintiffs. Defendant filed various cross-assignments of error in the trial court, which, in connection with plaintiffs' assignments of error, were presented to the Court of Civil Appeals.

[fol. 156] Upon a consideration of the case the Court of Civil Appeals reversed the judgment of the District Court and rendered judgment declaring that the order was in all respects valid and directing its enforcement. A motion for rehearing was duly filed and overruled. Hence this application for writ of error.

(Statement of Grounds of Jurisdiction and Questions Decided omitted.)

First Assignment of Error

The Honorable Court of Civil Appeals erred in holding that the transportation of gas from Wheeler County through the State of Oklahoma into Texas, under the facts and circumstances shown in the record, did not constitute interstate commerce. (104th ground of Motion for Rehearing.)

Second Assignment of Error

The Honorable Court of Civil Appeals erred in failing to hold that defendant was engaged in interstate commerce in transporting and selling gas produced or purchased by it in Wheeler County, Texas, and transported in its high pressure line through Oklahoma and thence back into the State

of Texas up to the city gates in Texas, where delivery is made. (119th ground of Motion for Rehearing.)

Third Assignment of Error

The Honorable Court of Civil Appeals erred in holding (having reference to the transportation of the gas from Wheeler County through the State of Oklahoma back into Texas for delivery at city gates in Texas) that "but one practical conception can be drawn from the whole transaction involved; that is, that the gas produced in Texas and intended to be delivered, sold and used in Texas is in [fols. 157-160] interstate commerce". (107th ground of Motion for Rehearing.)

Fourth Assignment of Error

The Honorable Court of Civil Appeals erred in holding that the rate order in question, fixing the sale price of the Wheeler County gas when sold and delivered at wholesale at the city gates in Texas after it had been transported from the State of Oklahoma, did not interfere in any manner with the transportation of gas from Texas through Oklahoma and back into Texas and did not burden or amount to a regulation of interstate commerce. (110th ground of Motion for Rehearing; also 105th and 108th grounds of Motion for Rehearing.)

Fifth Assignment of Error

The Honorable Court of Civil Appeals erred in holding that the transportation of gas through the State of Oklahoma amounted to merely a method of delivering the gas in Texas and was a negligible circumstance in determining the interstate commerce issue. (109th ground of Motion for Rehearing.)

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[fol. 161] Sixth Assignment of Error

The Honorable Court of Civil Appeals erred in holding that the facts show that the gas produced or purchased by defendant in Oklahoma and transported by its pipe lines to Texas does not move in interstate commerce when it reaches the city gates in Texas for delivery. (113th ground of Motion for Rehearing.)

[fols. 162-163] Seventh Assignment of Error

The Honorable Court of Civil Appeals erred in holding that the interstate transportation of gas purchased or produced by appellee in Oklahoma ceased when such gas passed through appellee's gasoline plant at Gainesville, Texas. (114th ground of Motion for Rehearing.)

Eighth Assignment of Error

The Honorable Court of Civil Appeals erred in holding and in giving any consideration to its holding that "the amount of Oklahoma gas as a whole is small and after dividing and re-dividing before delivery to the various city gates its amount is negligible in comparison with the amount of the Texas gas with which it is mixed or commingled." (115th ground of Motion for Rehearing.)

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[fol. 164] Ninth Assignment of Error

The Court of Civil Appeals erred in holding that defendant did not meet the burden of showing by clear and satisfactory evidence that the thirty-two cent rate would [fol. 165] not afford a reasonable return on its property used in Texas public service, and that the trial court erred in overruling the plaintiffs' motions for an instructed verdict because plaintiffs' own evidence, if believed (and the credibility of the witnesses and the weight to be given their testimony were matters to be determined by the jury), proved clearly and satisfactorily that the rate was unjust, unreasonable and confiscatory; and such testimony if it did not prove as a matter of law that the rate fixed by the Railroad Commission was unjust, unreasonable and confiscatory, at least raised an issue of fact to be submitted to the jury. (29th ground of Motion for Rehearing.)

Tenth Assignment of Error

The Honorable Court of Civil Appeals erred in holding in effect that after allowing defendant the well head price, paid by it to independent producers, for all gas produced by defendant from its own gas reserves, it was proper to eliminate from the rate base the value of gas reserves, gas wells and all production equipment, and also to eliminate

from consideration all of defendant's actual production expenses, including expenses of cancelled and surrendered leases, dry hole expense, drilling and tool expense, depreciation and depletion and the amount required to yield defendant a fair return on the fair value of its production system properties. (39th, 41st and 42nd grounds of Motion for Rehearing.)

Eleventh Assignment of Error

The Honorable Court of Civil Appeals erred in holding [fols. 166-171] that the fair value of defendant's property, undepreciated, used in public service was \$40,256,862.39. (31st ground of Motion for Rehearing.)

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Fourteenth Assignment of Error

[fols. 172-176] The Honorable Court of Civil Appeals erred in holding, in substance and effect, that under Article 6059, R. C. S. 1925, the order of the Railroad Commission fixing a rate should be sustained, upon a de novo trial in the District Court, if the evidence is merely conflicting and there is substantial evidence supporting the order of the Commission, because the statute, as thus construed and applied, denies to the defendant in this case the right to a judicial review of the rate order wherein the reviewing court may exercise its independent judgment in respect to both the facts and the law, a right that is guaranteed to the defendant by the Due Process Clause of the Fourteenth Amendment to the Constitution of the United States. (1st, 2nd, 3rd, 5th, 6th, and 25th grounds of Motion for Rehearing.)

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Fifteenth Assignment of Error

[fol. 177] The Honorable Court of Civil Appeals, having held in effect that the Railroad Commission made out a prima facie case by introducing the order of the Railroad Commission in evidence, which order was based on an evaluation and consideration of defendant's system as a whole and the income from and the expenses of said system, erred in holding that defendant did not make out a

prima facie case of the unjustness and unreasonableness of said order by showing that if said order had been in effect for the years in question defendant would not have earned a six (6%) per cent annual return even on the Commission's rate base, and after giving effect to the Commission's depreciation allowance and operating expenses. (47th ground of Motion for Rehearing.)

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Sixteenth Assignment of Error

[fol. 178] The Railroad Commission having found and held that defendant's property and business used and useful in the public service, is an integrated system, and the Honorable Court of Civil Appeals having found and held that defendant is not engaged in interstate commerce in transporting and supplying natural gas at any of the cities [fol. 179] and towns served by it in the State of Texas, and defendant having introduced evidence showing that the order of the Commission would not permit it to receive, in any of the years involved or in the future, as much as a six (6%) per cent return on the fair value of its public service property, and such evidence being uncontradicted and undisputed by any evidence offered by plaintiffs the Honorable Court of Civil Appeals erred in holding that the evidence was insufficient as a matter of law to make a jury issue as to the unjustness and unreasonableness of the Commission's order and that the trial court erred in not granting plaintiffs' motion for an instructed verdict. (80th ground of Motion for Rehearing.)

Seventeenth Assignment or Error

The judgment of the Honorable Court of Civil Appeals in disapproving defendant's present gate rate and in approving and holding as valid the rate prescribed in the order of the Railroad Commission takes defendant's property without due process of law and denies to defendant the equal protection of the law and denies to defendant the opportunity of earning a reasonable return upon the fair value of its public service property, all in violation of defendant's right under the Fourteenth Amendment to the Federal Constitution. (161st ground of Motion for Rehearing.)

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[fol. 180] Eighteenth Assignment of Error

The witnesses for plaintiffs having eliminated from their computation of the value of defendant's property in Texas, natural gas reserves, including producing as well as non-producing, gas wells and gas well equipment, having an actual book cost of approximately \$4,500,000.00 and pipe lines of the value of many thousands of dollars, all of which the undisputed evidence in this case shows were used and useful in the public service, in order to show that the rate prescribed in the Commission's order permitted defendant to earn approximately the six (6%) per cent return which [fol. 181] the Commission held was the minimum return to which defendant was entitled, the Honorable Court of Civil Appeals erred in holding that plaintiffs' computation of value represented the fair value of Defendant's property in Texas and that the trial court should have instructed a verdict for plaintiffs because there was substantial evidence to support the Commission's order allowing defendant a return of 6% per annum, the effect of which holding was to deny to defendant just compensation for the use of its property in the public service in violation of defendant's rights under the Texas and Federal Constitutions. (39th ground of Motion for Rehearing.)

Nineteenth Assignment or Error

The Honorable Court of Civil Appeals erred in holding in effect that after allowing defendant the wellhead price paid by defendant to independent producers for all gas produced by defendant from its own gas reserves, the elimination from the rate base of gas reserves, gas wells and equipment which cost defendant approximately four million, five hundred thousand (\$4,500,000.00) dollars, and of defendant's actual expenses of operation for cancelled and surrendered leases, dry hole expense, gas production expense and drilling tool expense was justified, inasmuch as the uncontradicted evidence shows that said allowance would be insufficient to provide for the depletion of said gas reserves, allow for the aforesaid expenses of operation and provide any return to defendant on the fair value of its gas reserves, gas wells and gas well equipment. (41st ground of Motion for Rehearing.)

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[fol. 182] Twentieth Assignment of Error

The Court erred in approving the segregation of property testified by plaintiffs' witnesses, such segregation being based upon the value of property located in Texas only, [fol. 183] excepting defendant's production system properties and certain pipe lines, because such evaluation failed to give any consideration to or value defendant's properties located in Oklahoma and actually and necessarily used and useful in transporting to Texas gas purchased or produced in Oklahoma, and to the extent that defendant's properties located in Oklahoma are used in the Texas public service, defendant, under the holding of the court, is denied just compensation for such use, in violation of its rights under Section 17, Article I of the Texas Constitution and the Fourteenth Amendment to the Federal Constitution. (67th ground of Motion for Rehearing.)

The foregoing assignment of error is adopted as a proposition.

[fol. 184] Twenty-First Assignment of Error

The Honorable Court of Civil Appeals erred in eliminating as an expense of operation the expense actually paid and charged by defendant for cancelled and surrendered leases, and in finding and holding in respect thereto that: "In view of its admitted large gas reserves, which will last for 40 years, and in view of the fact that it is a matter of judicial knowledge that gas by the multiplied millions of cubic feet is being wasted daily because of the lack of a market, we think these large charges are unjustified." (153rd ground of Motion for Rehearing.)

The foregoing assignment of error is adopted as a proposition.

Twenty-Second Assignment of Error

The undisputed evidence showing that the amount charged by defendant as an expense of operation for gas leases acquired but cancelled and surrendered was the actual amount paid for such leases as reflected on the books of the defendant, and the undisputed evidence further showing that such expenditures were made by defendant in the exercise of the best judgment of its management, and there

[fol. 185] being no evidence of inefficiency or improvidence on the part of defendant's management, the Honorable Court of Civil Appeals erred in holding that said expense was not supported by the quantum and character of evidence required in order for it to be allowed as an expense of operation in fixing defendant's rates, such holding denying to defendant its rights under the Fourteenth Amendment to the Federal Constitution. (58th ground of Motion for Rehearing.)

The foregoing assignment of error is adopted as a proposition.

[fol. 186] Twenty-Third Assignment of Error

The undisputed evidence showing that defendant actually expended in acquiring or attempting to acquire new business by way of advertising, solicitation and otherwise, the following sums, to-wit: \$126,125.98 in 1931, \$87,528.94 in 1932, \$99,793.94 in 1933, and \$101,308.68 during the twelve months' period ending March 31, 1934, and the undisputed evidence further showing that such expense was incurred in the exercise of the best judgment of defendant, and there being no evidence of inefficiency or improvidence on the part of defendant's management, the Honorable Court of Civil Appeals erred in holding that said expense was not supported by the quantum and character of evidence required in order for it to be allowed as an expense of operation in fixing defendant's rates. (57th ground of Motion for Rehearing.)

The foregoing assignment of error is adopted as a proposition.

[fol. 188] Twenty-Fourth Assignment of Error

There being no evidence establishing or showing that \$50,000.00 per annum would be a sufficient sum to allow defendant for Federal Income Taxes, the Honorable Court of Civil Appeals erred in so finding. (56th ground of Motion for Rehearing.)

[fols. 189-190] Twenty-Fifth Assignment of Error

The Honorable Court of Civil Appeals erred in holding that the testimony and evidence of defendant as to the proper annual sum to be allowed for credit to a reserve to provide for depreciation, depletion and amortization was speculative, at war with actual experience and plainly excessive, because the undisputed evidence shows that such calculations and estimates were based upon a study of the defendant's history, its past experience and its probable future requirements for depreciation, depletion and amortization. (49th ground of Motion for Rehearing.)

Twenty-Sixth Assignment of Error

The court erred in holding that the depreciation allowance of defendant's experts was speculative, at war with the actual experience of the company and plainly excessive, because said finding of fact is a finding based on conflicting testimony and on the weight to be given to the testimony of the witnesses and the credibility of the witnesses, all of which matters are matters for the determination of the jury and not for the determination of this court, and which this court has no power or authority to determine. (53rd ground of Motion for Rehearing.)

[fol. 191] Twenty-Seventh Assignment of Error

The Honorable Court of Civil Appeals erred in finding and holding that defendant offered no evidence which even tended to show that a six (6%) per cent rate of return would confiscate its property, or was unreasonable or unjust. (62nd ground of Motion for Rehearing.)

Twenty-Eighth Assignment of Error

There being ample evidence showing that a return of from eight to ten per cent would be just, fair and reasonable for defendant to earn, the Court erred in holding that as a matter of law the trial court and jury were without power to say that a six (6%) per cent return is unjust and unreasonable as to defendant. (63rd ground of Motion for Rehearing.)

Twenty-Ninth Assignment of Error

The Court having found that there was evidence that an eight or ten per cent per annum net return would be fair and

reasonable for defendant to earn and that there was a difference of opinion among the witnesses who testified on that point, erred in holding that, "This evidence merely presented the difference of opinion of experts * * * and their [fol. 192] opinions cannot be substituted for the finding of the Commission that a six (6%) per cent rate of return was fair and reasonable." (64th ground of Motion for Rehearing.)

* * * * *

[fol. 193-194] Thirtieth Assignment of Error

The Honorable Court of Civil Appeals erred in holding that, "The reproduction cost new value, as determined in the instant case, allows for all overhead expense, which together with the reasonable operating expenses allowed, fully compensate defendant for all development costs which have been incurred, and are ample to cover items entering into and forming a part of what is referred to as 'going concern value.' " (60th ground of Motion for Rehearing.)

Thirty-First Assignment of Error

The undisputed facts showing that defendant began operations in 1909 as a small concern with comparatively few consumers, and that as of the date of this inquiry it was rendering an efficient and dependable natural gas service to distributing companies who in turn serve 202,882 customers who are well educated in the use of natural gas, that defendant's said business has been gradually built up over a long period of years and is adequate to give defendant a reasonable return on the fair value of its property under rates which are reasonable to the public, the Honorable Court of Civil Appeals erred in holding that it was improper to allow for going concern value under the facts of the instant case, such holding denying to defendant its rights under the Fourteenth Amendment to the Federal Constitution. (61st ground of Motion for Rehearing.)

* * * * *

[fols. 195-196]

Thirty-Second Assignment of Error

The Court erred in holding that the testimony of appellee's (defendant's) witnesses based upon a segregation as

between property used in interstate and intrastate commerce proved nothing material in this case. (86th ground of Motion for Rehearing.)

Thirty-Third Assignment of Error

The Court erred in holding "that appellee offered no other proof upon a correct segregation or allocation of the property, and the Trial Court erred in refusing the Commission's order for an instructed verdict and for judgment declaring the rate order appealed from to be valid in every respect." (87th ground of Motion for Rehearing.)

Thirty-Fourth Assignment of Error

The Court erred in holding that "having failed to make a proper segregation of interstate and intrastate properties, defendant did not adduce the quantum and character of proof necessary to establish the invalidity of the rate as being confiscatory, or unreasonable and unjust." (89th ground of Motion for Rehearing.)

* * * * *

[fol. 197] Thirty-Fifth Assignment of Error

The evidence showing that the Commission's allowance for annual reserve accruals to provide for depreciation and amortization was computed on a sinking fund basis which required the existence and use of a sum in excess of \$5,000,000.00 in said reserve account at the date of inquiry, and which allowance was admittedly insufficient for the future requirements of defendant without the use of said credit balance in the reserve account, the Honorable Court of Civil Appeals erred in holding that said allowance would be adequate for future requirements and that the order of the Commission based thereon was just, reasonable and valid, such holding denying to defendant the right to earn a reasonable return on the fair value of its property used in the public service, in violation of defendant's rights under the Texas and National Constitutions. (52nd Ground of Motion for Rehearing.)

Thirty-Sixth Assignment of Error

The judgment of the Honorable Court of Civil Appeals herein in affirming the order of the Railroad Commission

which was declared to be unjust, unreasonable and invalid by the District Court, takes defendant's property without due process of law and without affording to defendant an opportunity to earn a reasonable return upon the fair value of its property used in the public service and denies to defendant the equal protection of the law in violation of defendant's rights under the 14th Amendment to the Federal Constitution in so far as said judgment approves the allowance made by the plaintiff's witnesses for annual accruals to a reserve for depreciation and amortization. (162nd Ground of Motion for Rehearing.)

[fol. 202] Forty-Third Assignment of Error

The Honorable Court of Civil Appeals having held that the scope of judicial review of the Railroad Commission's order by the district court under the Texas statutes, on defendant's claim that said order is unjust, unreasonable and confiscatory, is merely corrective and that such review is limited to a determination of whether the Commission's order is supported by substantial evidence, erred in failing to declare said order void as being in conflict with the due process requirements of the Fourteenth Amendment to the Federal Constitution, which entitles defendant to a judicial review of said order before a court with power to exercise an independent judgment as to both the facts and law involved. (1st ground of Motion for Rehearing.)

Forty-Fourth Assignment of Error

The court having held in effect that in suits filed pursuant to the provisions of Article 6059, R. S., 1925, the courts may not exercise an independent judgment in determining whether rate orders of the Railroad Commission are unjust and unreasonable or confiscatory, but that the courts must affirm such orders if there is substantial evidence to support them notwithstanding the evidence is conflicting, erred in holding the Railroad Commission's order valid for the reason that such holding denies to defendant a judicial review of the rate order in question on the constitutional issue of [fols. 203-205] confiscation to which defendant is entitled under the Fourteenth Amendment to the Constitution of the United States. (3rd ground of Motion for Rehearing.)

Forty-Fifth Assignment of Error

Inasmuch as the Honorable Court of Civil Appeals holds that this suit, or defendant's answer herein, is in effect an appeal from the order of the Railroad Commission pursuant to the provisions of Article 6059 Revised Civil Statutes of Texas, and inasmuch as the court has construed that statute as withholding from and denying to the district court the right and power to exercise an independent judgment on the facts underlying the issue of the unreasonableness, unjustness and confiscatory character of the order of the Commission and has held that the order of the Commission must be sustained if there is any substantial evidence offered upon the trial de novo supporting it, and inasmuch as the statutes and constitution of Texas as construed deny to this court and the Supreme Court of Texas such power and authority, and inasmuch as defendant has been compelled to follow the procedure which has been followed against its wishes and over its objection, defendant has not obtained that due process of law to which it is entitled under the Fourteenth Amendment to the Constitution of the United States. Accordingly, the order of the Commission was void and the court erred in failing to so hold. (8th ground of Motion for Rehearing.)

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[fols. 206-207]

Forty-Seventh Assignment of Error

The Court of Civil Appeals erred in holding that defendant obtained a trial de novo on the question of confiscation, or on the question of the reasonableness and justness of the order of the Commission, in view of its holding that the order of the Commission must be upheld as a matter of law, if there is any substantial evidence to support it, the latter holding denying, in substance, the right recognized by the former holding. (10th ground of Motion for Rehearing.)

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[fol. 208]

Fiftieth Assignment of Error

The Court erred in holding that "where, as in the instant case, the evidence is conflicting, and the conclusion to be

drawn therefrom in respect of this or that item uncertain or speculative, the Court should not interfere with gas rates in advance of any actual experience of the practical result of such new rates." (74th ground of Motion for Rehearing.)

Fifty-First Assignment of Error

The Court erred in holding that "We are clear in the view that where a State Commission fixes a utility rate so as to allow a 6% rate of return on the property used in the public service, the Courts will not, prior to a fair test of such rate, declare same void, unless the evidence establishes that it is confiscatory or invalid as a matter of law." (76th ground of Motion for Rehearing.)

[fol. 209] Fifty-Second Assignment of Error

The Court erred in reversing and rendering this case, because the issue raised by plaintiffs in their Second Amended Original Petition was the reasonableness of the rate promulgated by the Commission for gas delivered at the city gates of the various towns and cities served by defendant in intrastate commerce and this Court's holding that defendant was not engaged in interstate commerce in Texas has deprived defendant of an opportunity to develop facts in the case under the law as it has been announced for the first time by this decision. (84th ground of Motion for Rehearing.)

The foregoing assignment of error is adopted as a proposition.

[fol. 210] Fifty-Third Assignment of Error

The Court erred in holding that with respect to the jurisdiction of the Commission to regulate and control defendant's business and particularly for the purpose of fixing the rates for which it might sell gas to the public in Texas, the corporation must be regarded as being engaged in the single business enterprise of producing, purchasing, transporting, delivering and selling natural gas to the ultimate consumer or user in Texas, because there is no legal justification for ignoring the actual corporate existence of the

corporations in question, and because recognition of the existence of the corporations as separate and distinct entities in no way operates to impair or defeat the jurisdiction of the Railroad Commission. (98th ground of Motion for Rehearing.)

The foregoing assignment of error is adopted as a proposition.

Fifty-Fourth Assignment of Error

The Court erred in holding that to permit Texas corporations to dispose of their capital stock and form a separate entity of their own and to surrender the management and [fol. 211] control of their business to the holding corporation, which has no permit to do business in Texas, would enable them to defeat the jurisdiction of the Commission over them as Texas Public Utilities, because as a matter of law the Railroad Commission has the same power and jurisdiction over the business now carried on by the defendant, and the separate though affiliated corporations purchasing gas from it, considering the corporations as separate and distinct entities, as it would have if the corporate entities be ignored and the distributing companies and the pipe line companies treated as simply departments of different corporations. (101st ground of Motion for Rehearing.)

The foregoing assignment of error is adopted as a proposition.

(Supporting Statement, Authorities and Argument omitted.)

Fifty-Fifth Assignment of Error

The Honorable Court of Civil Appeals erred in holding that the reduction of 8 cents per thousand cubic feet in the city gate pipe line charge ordered by the Railroad Commission, could and should be passed on to the ultimate consumers, for the reason that the several distributing companies to whom defendant supplies gas are not parties to this suit and there is no evidence in this case upon which such issue can be considered and determined, there being no evidence in this case of the property values and earnings of any of the distributing companies, either under the existing rates or any lesser rates, and this is true, even though appellee and its distributing companies be regarded as one common concern, for as much as a utility such as [fol. 212] defendant is entitled to a reasonable return on

every branch and part of its property, whether it be a transmission or a ~~distribution~~ system. (77th ground of Motion for Rehearing.)

Fifty-Sixth Assignment of Error

The Court erred in holding that the Railroad Commission of Texas may, without further notice or hearing, require the distributing companies purchasing gas from appellee to cease paying appellee a rate for gas purchased by them in excess of 32 cents. (78th ground of Motion for Rehearing.)

Fifty-Seventh Assignment of Error

The Court erred in holding that "if the 32 cent rate is declared valid herein, defendant can have no further interest in any order the Commission may make with regard to requiring the various distributing companies to pay in excess of such rate and to pass the 8 cent reduction on to the ultimate consumers," because under the holding of the Court that corporate entities are to be ignored and that defendant is to be deemed to be engaged in the business of distributing gas legally to domestic consumers, defendant has a most vital interest in law and in fact in the burner tip rates. (79th ground of Motion for Rehearing.)

The above Assignments of Error are submitted as Propositions.

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[fol. 213] Fifty-Eighth Assignment of Error

The Court of Civil Appeals erred in failing to hold that defendant is engaged in interstate commerce at the city gates of various towns and cities in Texas, and that the order of the Railroad Commission prohibiting defendant from collecting in excess of thirty-two cents for all gas sold and delivered by it to various distributing companies at the city gates including gas transported and delivered in inter-[fol. 214] state commerce, directly interfered with and constituted a burden upon interstate commerce and defendant's right to engage therein, in violation of the Commerce Clause of the Constitution of the United States, and in not holding the order of the Railroad Commission void and unenforceable insofar as plaintiffs sought to enforce the same

as against such gas transported and sold by defendant in interstate commerce. (125th ground of Motion for Rehearing.)

* * * * *

Fifty-Ninth Assignment of Error

The Court erred in failing and refusing to sustain defendant's Cross-Assignment of Error No. 2, as follows:

"The Court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and [fol. 215] timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from the statement of the Railroad Commission of Texas attached to the opinion and order of the said Commission, marked Exhibit "a" and referred to in Plaintiffs' Second Amended Original Petition, that defendant was engaged in the production and sale at wholesale of natural gas, engaging in both interstate and intrastate commerce in the sale of gas to some 300 cities and towns in the States of Oklahoma and Texas. The order of the Railroad Commission undertook to fix a reasonable rate for all of the gas supplied by the defendant to the various distributing companies. A part of the gas being delivered by the defendant at the city gates of various towns and cities in Texas at the time of the investigation of the Railroad Commission, and at all times in question was being transported uninterruptedly through defendant's high pressure pipe lines from and through the State of Oklahoma into the State of Texas. The business of transporting natural gas uninterruptedly through defendant's high pressure pipe lines from the State of Oklahoma into the State of Texas, and from the State of Texas through Oklahoma and back into the State of Texas is national in character and constitutes interstate commerce and transportation, and also constitutes a substantial portion of defendant's entire natural gas business. The order of the Railroad Commission was intended to and did, in fact, prescribe the rate to be charged for all gas sold by the defendant, including interstate gas, and thereby prevented the defendant from charging and receiving the price for interstate gas which it was charging and receiving, and, therefore, was a burden upon and a direct regulation of

interstate commerce. The order of the Railroad Commission [fol. 216] therefore was void insofar as it related to interstate commerce, and gas sold by the defendant moving in interstate commerce under the Commerce Clause of the Federal Constitution, and, being void in part, and being indivisible in character, it was void in its entirety and could not be enforced in whole or in part by the plaintiffs in this suit." (126th ground of Motion for Rehearing.)

* * * * *

Sixtieth Assignment of Error

The Court erred in rendering judgment for plaintiffs because not only does Article 6059 of the Revised Civil Statutes of Texas, as construed, deny to defendant due process of law in violation of its rights under the Fourteenth Amendment to the Constitution of the United States, and not only does the Court treat this case and answer of defendant as an appeal thereunder, but defendant has been compelled to follow the procedure outlined thereunder upon [fol. 217] representations by plaintiffs that every constitutional and legal right to which it might be entitled would be fully safeguarded, and that it would be entitled to the same sort of trial to which it would have been entitled in its suit in the Federal Court upon the basis of which representations the Federal Court stayed proceedings therein with the result that not only does defendant fail to get the kind of trial to which it would have been entitled in the Federal Court but is denied the opportunity of every obtaining the same. (12th ground of Motion for Rehearing.)

* * * * *

Sixty-First Assignment of Error

The judgment of the Honorable Court of Civil Appeals herein in affirming the order of the Railroad Commission which was declared to be unjust, unreasonable and invalid by the District Court, takes appellee's property without due process of law and without affording to appellee an opportunity to earn a reasonable return upon the fair value of its property used in the public service and denies to appellee the equal protection of the law in violation of appellee's rights under the Fourteenth Amendment to the [fol. 218] Federal Constitution in so far as said judgment

approves the inclusion of approximately \$334,000.00 per annum as operating income on account of temperature adjustments which appellee is shown by the evidence in this case never to have received. (163rd ground of Motion for Rehearing.)

The foregoing assignment of error is adopted as a proposition.

(Supporting Statement, Authorities and Argument omitted.)

Sixty-Second Assignment of Error

The Court erred in reversing and rendering this case in favor of the plaintiffs and against the defendant, in view of it holding that the issue of confiscation was not submitted to the jury, inasmuch as defendant plead that its property would be confiscated through the order of the Commission and proved such confiscation if its testimony were accepted as the more credible and entitled to the most weight, and requested that the issue be submitted to the trial court, and excepted and objected to the failure and refusal of the trial court to submit the same; and if it be true, as held by this Court, that the issue was not submitted, then by reversing and rendering the case this Court has deprived defendant of the right of a judicial determination of the question of confiscation inasmuch as this Court has no power or authority under the Texas laws as an appellate court to determine that issue. (93rd ground of Motion for Rehearing.)

The foregoing assignment of error is adopted as a proposition.

(Supporting Statement, Authorities and Argument omitted.)

[fol. 219] The defendants in error (hereinbefore designated as plaintiffs) are represented herein by their attorneys of record Honorable William McCraw, Attorney General of Texas, Honorable Scott Gaines, First Assistant Attorney General, Hon. Alfred M. Scott, Assistant Attorney General, and Honorable F. L. Kuykendall, all of whom reside at Austin, Texas, and by Honorable A. R. Stout, a former Assistant Attorney General, now residing at Houston, Texas. They have been notified in writing of the filing

of this Application for Writ of Error and a duplicate copy of same has been deposited with the Clerk for their use on demand.

[fol. 220] (The above Application for Writ of Error bears endorsements showing that same was filed in the Court of Civil Appeals on October 25, 1935, and in the Supreme Court of Texas on November 2, 1935.)

[fol. 221] IN SUPREME COURT OF TEXAS

App. No. 21600

LONE STAR GAS CO.

VS.

STATE OF TEXAS et al.

From Travis County, 3rd District

ORDER DENYING APPLICATION FOR WRIT OF ERROR—October
7, 1936

This day came on to be heard the application of plaintiff in error for a writ of error to the Court of Civil Appeals for the Third District, and the same having been duly considered, it is ordered that the application be refused; that applicant, Lone Star Gas Company, pay all costs incurred on this application.

(No opinion filed.)

[fol. 222] IN SUPREME COURT OF TEXAS

[Title omitted]

ENTRY ON MOTION DOCKET SHOWING FILING OF MOTION FOR
REHEARING OF THE APPLICATION FOR WRIT OF ERROR

Motion for Rehearing of Application No. 21,600.
Filed October 22, 1936.

[fol. 223]

IN SUPREME COURT OF TEXAS

[Title omitted].

MOTION FOR REHEARING OF APPLICATION FOR WRIT OF ERROR
—Filed October 22, 1936

To the Honorable the Supreme Court of Texas:

Comes now Lone Star Gas Company, a corporation, being plaintiff in error in the above styled and numbered cause, and files this its Motion for Rehearing of its Application for Writ of Error, and in this behalf prays that the order of the Court refusing said Application be set aside and that the Application be granted on rehearing, and that plaintiff in error be accorded the relief prayed for in the Application.

To prevent confusion, the parties to this cause will be referred to as they appeared and were designated in the district court and in the Application for Writ of Error; the defendants in error as plaintiffs and the plaintiff in error as defendant.

[fol. 224] We shall not enter upon a reargument of all of the questions presented in the Application. Instead, we shall select a few of the more important questions and discuss these briefly, citing additional authorities and presenting additional and new points of argument, in an effort to demonstrate that the Court erred in refusing the Application for Writ of Error.

Some of these questions are so important and have such intrinsic merit that we feel that we must have failed to present them as clearly in the Application for Writ of Error as they should have been presented; only in that way are we able to explain the refusal of the writ of error.

First Assignment of Error

This Honorable Court erred in failing to grant the Application for Writ of Error on the First Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding that the transportation of gas from Wheeler County through the State of Oklahoma back into Texas did not constitute interstate commerce.

Second Assignment of Error

This Honorable Court erred in failing to grant the Application for Writ of Error on the Second Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in failing to hold that defendants. 225-226] defendant was engaged in interstate commerce in transporting and selling gas produced or purchased by it in Wheeler County, Texas, and transported by it in its high pressure line through the State of Oklahoma and thence back into the State of Texas up to the city gates in Texas, where sale and delivery are made.

Third Assignment of Error

This Honorable Court erred in failing to grant the Application for Writ of Error on the Fourth Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding that the rate order in question fixing the sales price of the Wheeler County gas when sold and delivered at wholesale at the various city gates in Texas after it had been transported through the State of Oklahoma, did not interfere in any manner with the transportation of gas from Texas through Oklahoma and back into Texas, and did not burden or amount to a regulation of interstate commerce, in violation of the Commerce Clause of the Constitution of the United States.

Fourth Assignment of Error

This Honorable Court erred in holding, in effect, that the prescribing of the price that might be charged and collected in the first sale and delivery in Texas of this Wheeler County gas, transported in interstate commerce into Texas, does not constitute a direct regulation of said commerce, a violation of Article I, Sec. 8, Cl. 3, of the Federal Constitution.

Fifth Assignment of Error

This Honorable Court erred in approving, in effect, by fol. 228] refusing the writ of error, the holding of the Court of Civil Appeals that the prescribing of the alleged reasonable city gate rates to be charged for sale and delivery of this gas transported in interstate commerce did

not amount to a direct regulation of interstate commerce, in violation of the Commerce Clause of the National Constitution, but only to an indirect or incidental burden upon such commerce.

Sixth Assignment of Error

This Honorable Court erred in approving, in effect, the holding of the Court of Civil Appeals that defendant's segregation of its properties and business, as between intrastate and interstate commerce, which treated this Wheeler County gas as interstate gas, was improper. The Wheeler County gas was plainly interstate gas and defendant therefore correctly allocated to its interstate business the properties used in producing and transporting it, as well as the revenues and expenses received and incurred in handling it.

(Statement, Authorities, and Argument omitted.)

Seventh Assignment of Error

This Honorable Court erred in failing to grant the writ of error on account of the Sixth Assignment of Error presented in the Application for Writ of Error, which asserts that the Court of Civil Appeals erred in holding that the [fol. 229] gas produced or purchased by defendant in the State of Oklahoma and transported by its pipe lines to Texas does not move in interstate commerce when it reaches the city gates in Texas for delivery.

Eighth Assignment of Error

This Honorable Court erred in failing to grant the Application for Writ of Error on account of the Seventh Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding that the interstate transportation of gas purchased or produced by the defendant in the State of Oklahoma ceased when such gas passed through defendant's gasoline plant at Gainesville, Texas, such holding involving an erroneous construction of the Commerce Clause of the Constitution of the United States. (Art. I, Sec. 8, Cl. 3.)

Ninth Assignment of Error

This Honorable Court erred in failing to grant the Application for Writ of Error on the Eighth Assignment of

Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding, and in giving effect to such holding, that "the amount of Oklahoma gas as a whole is small and after dividing and redividing before delivery to the various city gates its amount is negligible in comparison with the amount of the Texas gas with which it is mixed or commingled."

Tenth Assignment of Error

[fols. 230-231] This Honorable Court erred in refusing the Application for Writ of Error and thereby holding, in effect, that the Application of the prescribed city gates rate to the first sales in Texas of the gas produced or purchased by the defendant in the State of Oklahoma and transported to Texas did not involve a direct regulation of interstate commerce, in violation of the Commerce Clause of the Constitution of the United States (Art. I, Sec. 8, Cl. 3), but only an indirect regulation or incidental regulation of such commerce.

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[fol. 232] Eleventh Assignment of Error

This Honorable Court erred in failing to grant the Application for Writ of Error on the Ninth Assignment of Error in the Application, which asserted that the Court of Civil Appeals erred in holding that defendant did not meet the burden of showing by clear and satisfactory evidence that the thirty-two cent rate would not afford a reasonable re-[fol. 233] turn on its properties used in the public service, in Texas, and in further holding that the evidence offered by the plaintiffs themselves did not prove clearly and satisfactorily that the prescribed rate was unjust, unreasonable and confiscatory, and violative of defendant's property rights under the State Constitution and under the Fourteenth Amendment to the Federal Constitution.

Twelfth Assignment of Error

This Honorable Court erred in failing to grant the Application for Writ of Error on the Tenth Assignment of Error presented in the Application for Writ of Error, which asserted, in effect, that the Court of Civil Appeals erred in holding that after allowing the defendant, for all gas

produced by defendant from its own gas reserves, the well head price paid by defendant for gas sold to it by independent producers, it was proper to eliminate from the rate base the value of defendant's gas reserves, its gas wells, and all of its production equipment property, and also to eliminate from consideration all of defendant's actual expenses incurred in the handling and operating of its producing property, including expenses of canceled and surrendered leases, dry hole expense, drilling and tool expense, operating expense, depreciation and depletion, as well as the amount required to yield defendant a fair return on the fair value of its production system properties; such ruling depriving the defendant of its property without due process of law, in violation of the Due Process Clause of the Four- [fol. 234] teenth Amendment to the Constitution of the United States.

Thirteenth Assignment of Error

This Honorable Court erred in failing to grant the Application for Writ of Error on the Eleventh Assignment of Error presented in the Application, which asserted that the Court of Civil Appeals erred in holding that the fair value of defendant's property, undepreciated, used in the public service, was \$40,256,862.39.

Fourteenth Assignment of Error

This Honorable Court erred in failing to grant the Application for Writ of Error on the Nineteenth Assignment of Error presented in the Application, which asserted that the Court of Civil Appeals erred in holding that after allowing to defendant, on account of all gas produced by defendant from its own gas reserves, the well head price paid by defendant to independent producers, it was proper to then eliminate from the rate base the value of all gas reserves, the value of gas wells and equipment costing the defendant approximately \$4,500,000.00, and valued by the Commission at \$4,674,285.91, and to also eliminate from consideration defendant's actual expenses of operating its said production system properties, aggregating, under the Commission's findings, the sum of \$247,732.86; such holding denying to the defendant due process of law and depriving it of its property without due process of law, in violation of the Due Process Clause (Sec. 1) of the Fourteenth

[fols. 235-237] Amendment to the Constitution of the United States.

Fifteenth Assignment of Error

This Honorable Court erred in failing to grant the Application for Writ of Error on the Eighteenth Assignment of Error presented in the Application, which assignment complains of the error of the Court of Civil Appeals in holding that it was proper to eliminate from the rate base and from consideration the entire value of defendant's production system properties, as well as all operating expenses incurred and paid by the defendant in the handling and operating of said properties, and to substitute therefor the application of an arbitrary formula under which defendant was allowed for the gas produced by it the well head price per thousand cubic feet paid by it to other producers. The effect of the substitution of said arbitrary formula was to deprive the defendant of its property without due process of law, in violation of the Fourteenth Amendment to the Constitution of the United States.

* * * * *

[fol. 238] Seventeenth Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Fourteenth Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding, in substance and effect, that under Article 6059, Revised Civil Statutes of 1925, the order of the Railroad Commission fixing a rate should be sustained, upon a de novo trial in the district court, if the evidence is merely conflicting and there is substantial evidence supporting the [fol. 239] order, because this statute, as thus construed and applied, denies to the defendant in this case the right to a judicial review of the rate order, wherein the reviewing court may exercise its independent judgment in respect to the facts as well as the law, a right guaranteed to the defendant by the Due Process Clause (Sec. 1) of the Fourteenth Amendment to the Constitution of the United States.

Eighteenth Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Forty-

third Assignment of Error presented in the Application, the same being as follows:

"The Honorable Court of Civil Appeals having held that the scope of judicial review of the Railroad Commission's order by the district court under the Texas statutes, on defendant's claim that said order is unjust, unreasonable and confiscatory, is merely corrective and that such review is limited to a determination of whether the Commission's order is supported by substantial evidence, erred in failing to declare said order void as being in conflict with the due process requirements of the Fourteenth Amendment to the Federal Constitution, which entitles defendant to a judicial review of said order before a court with power to exercise an independent judgment as to both the facts and law involved."

Nineteenth Assignment of Error

This Honorable Court erred in overruling and in failing [fols. 240-241] to grant the Application for Writ of Error on the Forty-fourth Assignment of Error presented in the Application and in thereby holding that under the provisions of Article 6059 the courts may not exercise an independent judgment in determining whether rate orders are confiscatory, but must affirm and approve such orders if there is any substantial evidence to support them, such holding denying to the defendant an independent judicial review of the rate order in question on the constitutional issue of confiscation, to which the defendant is entitled under the Due Process Clause of the Fourteenth Amendment to the Constitution of the United States.

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[fol. 242] Twentieth Assignment of Error

This Honorable Court erred in failing to grant the Application for Writ of Error on the Eighth Proposition submitted under the Ninth, Tenth and Eleventh Assignments of Error presented in the Application (p. 89), said proposition being as follows:

"The Railroad Commission having refused to segregate defendant's properties and operations in fixing this rate and having expressly found that in determining a fair rate it was necessary to consider all of defendant's properties

and all of its operations, the holding of the Court of Civil Appeals, to the effect that defendant in assailing the rate was required to segregate its properties and operations, contrary to the express finding of the Railroad Commission, [fols. 243-244] and to establish, under Article 6059, by 'clear and satisfactory' evidence that the segregation was proper and that the rate was confiscatory as applied to such segregated properties, deprives the defendant of due process of law, in violation of the Fourteenth Amendment to the Constitution of the United States because said holding, as applied to the facts of this case, deprives the defendant of a fair opportunity to test in a judicial proceeding the validity and reasonableness of the rate as it was fixed by the Commission, and deprives the defendant of the kind of judicial review to which it is entitled under the Due Process Clause of the Fourteenth Amendment."

* * * * *

[fol. 245] Twenty-First Assignment of Error

This Honorable Court erred in failing to grant the Application for Writ of Error on the Fifteenth Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding that defendant did not make out a prima facie case against the validity of the prescribed rate by showing that if said rate had been in effect for the years in question defendant would not have earned a six per cent annual return even on the Commission's rate base, and after giving effect to the Commission's [fol. 246] depreciation allowance and allowance for operating expenses.

Twenty-Second Assignment of Error

This Honorable Court erred in overruling, in effect, the First Proposition under the Fifteenth Assignment of Error presented in the Application, (Application, p. 105), which asserts that the Court of Civil Appeals erred in holding that defendant failed as a matter of law to prove any invalidating fact against the Commission's rate order because it failed to make a proper segregation as between the property employed and the business done in intrastate and interstate commerce, which segregation the Railroad Commission had held to be unnecessary.

* * * * *

[fol. 247] Twenty-Third Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Sixteenth Assignment of Error presented in the Application for Writ of Error. (Application, p. 11.)

: Twenty-Fourth Assignment of Error

This Honorable Court erred in overruling the Seventeenth Assignment of Error presented in the Application for Writ of Error and in thereby holding that the judgment of the Court of Civil Appeals approving and holding valid the rate prescribed in the order of the Railroad Commission did not take defendant's property without due process of law, and did not deny to the defendant the equal protection of the laws, and did not deny [fol. 248] to it the opportunity of earning a reasonable return on the fair value of its property used in the public service, all in violation of Section 1 of the Fourteenth Amendment to the Constitution of the United States.

(Statement, Authorities, and Argument omitted.)

Twenty-Fifth Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Twentieth Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in approving the segregation of property sponsored by plaintiffs' witnesses, such segregation being based upon the value of the property located in Texas only (excepting, however, defendant's production system properties and certain pipe lines which were not included) because such valuation failed to give any consideration to or value to defendant's properties located in Oklahoma and actually used and useful in transporting to Texas gas purchased or produced in Oklahoma, and to the extent that defendant's properties located in Oklahoma are used in rendering public service in Texas, defendant, under the holding of the Court is denied just compensation for such use, in violation of Section 17, Article I, of the Texas Constitution, and in violation of the Due Process Clause of the Fourteenth Amendment to the Federal Constitution.

[fol. 249] Twenty-Sixth Assignment of Error

This Honorable Court erred in overruling the Second Proposition under the Twentieth Assignment of Error presented in the Application, reading as follows:

"What plaintiffs' witnesses called the 'Texas-Oklahoma Gas Sales Adjustment' was a purely arbitrary bookkeeping allowance created by these witnesses (and not referred to in the findings of the Railroad Commission) as a substitute for actual values and actual outlays greatly exceeding the allowance. The practical effect of this 'adjustment' was to deny defendant's right to a fair return on its Oklahoma properties used and useful in producing and bringing gas to Texas; the allowance did not even amount to operating expenses,"

and in thereby approving the holding of the Court of Civil Appeals in respect to said Texas-Oklahoma Gas Sales Adjustment.

Twenty-Seventh Assignment of Error

This Honorable Court erred in holding, in effect, that it was proper to substitute the arbitrary book-keeping allowance called the "Texas-Oklahoma Gas Sales Adjustment" for an actual valuation of defendant's Oklahoma properties used and useful in the rendering of service in Texas, as well as for the actual revenues and expenses received and incurred by defendant in the use of its Oklahoma properties for the rendering of public service in Texas. This holding deprived the defendant of due process of law and deprived it of its property without due process of law, in [fol. 250] violation of the Due Process Clause of the Fourteenth Amendment to the Federal Constitution.

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[fol. 251] Twenty-Eighth Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Thirty-fourth Assignment of Error as presented in the Application for Writ of Error, and in thereby holding that the Court of Civil Appeals did not err in holding that defend-

ant failed to make a proper segregation of its interstate and intrastate properties and therefore failed to adduce the quantum and character of proof necessary to establish the invalidity of the rate as being confiscatory or unreasonable and unjust.

Twenty-Ninth Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Thirty-third Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding that the trial court erred in refusing the Commission's motion for an instructed verdict and for judgment declaring the rate order appealed from to be valid in every respect, because defendant offered no proof showing a correct segregation or allocation of its property as between interstate and intrastate commerce.

Thirtieth Assignment of Error

This Honorable Court erred in overruling the Thirty-second Assignment of Error presented in the Application and in holding that the testimony of defendant's witnesses showing a segregation as between defendant's property [fol. 252] used in interstate commerce and its property used in intrastate commerce proved nothing that was material in this case.

.

Thirty-First Assignment of Error

This Honorable Court erred in overruling the Second Proposition under Assignments of Error Thirty-second to Thirty-fourth, inclusive, presented in the Application, which is as follows:-

"Plaintiffs were not entitled to an instructed verdict even if defendant's segregation was improper, in this: The segregation made by the plaintiffs was obviously improper, being based in main upon an arbitrary geographical standard giving no effect to the manner in which the defendant's [fol. 253] property was used and its business conducted. The Railroad Commission found that in the fixing of a reasonable rate the property and business were to be consid-

ered as a unit; in other words that no segregation was required in fixing a fair and reasonable rate. If the defendant's segregation was wrong and the plaintiffs' segregation was also wrong, then the case stood upon the finding of the Railroad Commission to the effect that no segregation was required in fixing a reasonable rate, and with the Commission's valuation of defendant's property on that basis rebutted by nothing except the evidence offered by the defendant dealing with its property and business as a whole."

(Statement, Authorities, and Argument omitted.)

Thirty Second Assignment of Error

If a segregation of defendant's property and business as between interstate and intrastate commerce was required, then the rate order here in question was void because promulgated by the Commission upon a fundamentally wrong theory, in fact and in law, and this Honorable Court erred in holding, in effect, the contrary by refusing the writ of error.

(Statement, Authorities, and Argument omitted.)

[fol. 254] Thirty-Third Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error upon the Twenty-first Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in eliminating as an expense of operation the expense actually paid and charged by the defendant for canceled and surrendered leases, and further erred in making the finding referred to in the assignment.

Thirty-Fourth Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Twenty-second Assignment of Error presented therein, which complains of the ruling of the Court of Civil Appeals in holding that the expense charged by defendant for canceled and surrendered leases was not sustained by the quantum and character of evidence required in order for it to be allowed as an expense of operation in fixing defendant's rates—

such holding denying to defendant its rights secured to it under the Due Process Clause of the Fourteenth Amendment to the Federal Constitution.

[fol. 255] (Statement, Authorities, and Argument omitted.)

Thirty-Fifth Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Twenty-third Assignment of Error presented in the Application for Writ of Error, which complains of the ruling of the Court of Civil Appeals in respect to defendant's right to deduct as part of its operating expense outlays on account of advertising and soliciting of business.

(Statement, Authorities, and Argument omitted.)

Thirty-Sixth Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Twenty-fourth Assignment of Error presented therein, which asserts that the Court of Civil Appeals erred in holding that \$50,000.00 per annum would be a sufficient sum to allow defendant for Federal income taxes.

(Statement, Authorities, and Argument omitted.)

[fol. 256] Thirty-Seventh Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Thirty-fifth Assignment of Error presented in the Application, said assignment being as follows:

"The evidence showing that the plaintiffs' allowance for annual reserve accruals to provide for depreciation and amortization was computed on a sinking fund basis which required the existence and use of a sum in excess of \$5,000,000.00 in said reserve account at the date of inquiry, and which allowance was admittedly insufficient for the future requirements of defendant without the use of said credit balance in the reserve account, the Honorable Court of Civil Appeals erred in holding that said allowance would be adequate for future requirements and that the order of the Commission based thereon was just, reasonable and valid, such holding denying to defendant the right to earn a rea-

sonable return on the fair value of its property used in the public service, in violation of defendant's rights under the Texas and National Constitutions."

Thirty-Eight Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Thirty-[fol. 257] sixth Assignment of Error presented in the Application, said assignment reading as follows:

"The judgment of the Honorable Court of Civil Appeals herein in affirming the order of the Railroad Commission which was declared to be unjust, unreasonable and invalid by the District Court, takes defendant's property without due process of law and without affording to defendant an opportunity to earn a reasonable return upon the fair value of its property used in the public service and denies to defendant the equal protection of the laws in violation of defendant's rights under the 14th Amendment to the Federal Constitution in so far as said judgment approves the allowance made by the plaintiffs' witnesses for annual accruals to a reserve for depreciation and amortization."

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[fol. 258] Thirty-Ninth Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Twenty-fifth Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding that the evidence offered by defendant relating to the proper sum to be annually allowed for credit to a reserve to provide for depreciation, depletion and amortization was speculative and at war with actual experience, and plainly excessive because the undisputed evidence shows that such estimates were based upon a study of defendant's history and experience and a consideration of its probable future [fol. 259] requirements for depreciation, depletion and amortization.

Fortieth Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Twenty-

sixth Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding that the depreciation allowance sponsored by defendant was at war with actual experience and plainly excessive, this ruling being erroneous because it amounts to a fact finding by the Court of Civil Appeals, based on conflicting testimony and on the weight to be attached to the testimony of witnesses and other matters properly determinable by the jury and not by the Court of Civil Appeals.

Forty-First Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Thirtieth Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding that the reproduction cost new value, as determined in this case, allows for all overhead expense, which together with the reasonable operating expense allowed fully compensated [fol. 260] the defendant for all development costs which have been incurred, and are ample to cover items entering into and forming a part of what is referred to as "going concern value."

Forty-Second Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Thirty-first Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding that it was improper to allow anything for "going concern value" under the facts of the instant case, such holding denying to defendant its constitutional rights under the Fourteenth Amendment to the Federal Constitution.

Forty-Third Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Twenty-seventh Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding that defendant offered no evidence which even tended to show that a six per cent rate of return would confiscate its property, or was unreasonable or unjust.

[fol. 261] Forty Fourth Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Twenty-eighth Assignment of Error presented in the Application, which asserts that since there was evidence showing that a return of from eight to ten per cent would be just, fair and reasonable, the Court of Civil Appeals erred in holding as a matter of law that the finding of the Commission was conclusive.

In this connection, the defendant submits that the rulings here complained of deprived the defendant of the exercise of the independent judgment of the trial court and jury as to what would constitute a reasonable return on the fair value of its property and denied to it the independent judicial review to which it was entitled under the Fourteenth Amendment to the Federal Constitution.

(Statement, Authorities, and Argument omitted.)

Forty-Fifth Assignment of Error

This Honorable Court erred in overruling the Twenty-ninth Assignment of Error presented in the Application, reading as follows:

“The Court having found that there was evidence that an eight or ten per cent per annum net return would be fair and reasonable for defendant to earn and that there was a difference of opinion among the witnesses who testified on [fol. 262] that point, erred in holding that, ‘This evidence merely presented the difference of opinion of experts . . . and their opinions cannot be substituted for the finding of the Commission that a six (6%) per cent rate of return was fair and reasonable.’ ”

(Statement, Authorities, and Argument omitted.)

.

[fol. 263] Forty-Ninth Assignment of Error

This Honorable Court erred in overruling the Forty-fourth Assignment of Error presented in the Application, reading as follows:

[fol. 264] “The court having held in effect that in suits filed pursuant to the provisions of Article 6059, R. S., 1925,

the courts may not exercise an independent judgment in determining whether rate orders of the Railroad Commission are unjust and unreasonable or confiscatory, but that the courts must affirm such orders if there is substantial evidence to support them notwithstanding the evidence is conflicting, erred in holding the Railroad Commission's order valid, for the reason that such holding denied to defendant a judicial review of the rate order in question on the constitutional issue of confiscation to which defendant is entitled under the Fourteenth Amendment to the Constitution of the United States."

Fiftieth Assignment of Error

This Honorable Court erred in overruling the Forty-fifth Assignment of Error presented in the Application, reading as follows:

"Inasmuch as the Honorable Court of Civil Appeals holds that this suit, or defendant's answer herein, is in effect an appeal from the order of the Railroad Commission pursuant to the provisions of Article 6059, Revised Civil Statutes of Texas, and inasmuch as the court has construed that statute as withholding from and denying to the district court the right and power to exercise an independent judgment on the facts underlying the issue of the unreasonableness, unjustness and confiscatory character of the order of the Commission and has held that the order of the Commission [fol. 265] must be sustained if there is any substantial evidence offered upon the trial de novo supporting it, and inasmuch as the statutes and Constitution of Texas as construed deny to this court and the Supreme Court of Texas such power and authority, and inasmuch as defendant has been compelled to follow the procedure which has been followed against its wishes and over its objection, defendant has not obtained that due process of law to which it is entitled under the Fourteenth Amendment to the Constitution of the United States. Accordingly, the order of the Commission was void and the court erred in failing to so hold."

(Statement, Authorities, and Argument omitted.)

Fifty-First Assignment of Error

This Honorable Court erred in holding, in effect, that in determining the question of whether the order of the Rail-

road Commission was confiscatory of defendant's property used in the public service the district court was confined to a determination of whether or not there was substantial evidence to support the order of the commission, and that if there was such evidence the order of the Commission must be upheld, because such holding operates to deny to defendant the right to the independent judgment of the court on both the facts and law and to deny to defendant the right to a determination of the reasonableness of the order based [fol. 266] upon the weight to be given to conflicting testimony, in violation of defendant's rights under the due process clause of the Fourteenth Amendment to the Constitution of the United States.

Fifty-Second Assignment of Error

This Honorable Court erred in overruling the Fiftieth Assignment of Error presented in the Application and in holding that the Court of Civil Appeals did not err in holding that "where, as in the instant case, the evidence is conflicting, and the conclusion to be drawn therefrom in respect of this or that item uncertain or speculative, the Court should not interfere with gas rates in advance of any actual experience of the practical result of such new rates."

Fifty-Third Assignment of Error

This Honorable Court erred in overruling the Fifty-first Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding that "We are clear in the view that where a State Commission fixes a utility rate so as to allow a 6% rate of return on the property used in the public service, the Court will not, prior to a fair test of such rate, declare same void, unless the evidence establishes that it is confiscatory or invalid as a matter of law."

(Statement omitted.)

[fol. 267] Fifty-Fourth Assignment of Error

This Honorable Court erred in overruling the Fifty-second Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in reversing and rendering this case, because the issue raised by plaintiffs in their Second Amended Original Petition

was the reasonableness of the rate promulgated by the Commission for gas delivered at the city gates of the various towns and cities served by defendant in intrastate commerce, and this Court's holding that defendant was not engaged in interstate commerce in Texas has deprived defendant of an opportunity to develop facts in the case under the law as it has been announced for the first time by this decision.

(Statement omitted).

Fifty Fifth Assignment of Error

This Honorable Court erred in overruling the Fifty fifth Assignment of Error presented in the Application which asserts that the Court of Civil Appeals erred in holding that the reduction of 8 cents per thousand cubic feet in the city gate pipe line charge ordered by the Railroad Commission, could and should be passed on to the ultimate consumers, for the reason that the several distributing companies to whom defendant supplies gas are not parties to this suit and there is no evidence in this case upon which such issue can be considered and determined, there being no evidence in this case of the property values and earnings [fol. 268] of any of the distributing companies, either under the existing rates or any lesser rates, and this is true, even though defendant and its distributing companies be regarded as one common concern, for as much as a utility such as defendant is entitled to a reasonable return on every branch and part of its property, whether it be a transmission or a distribution system.

Fifty-Sixth Assignment of Error

This Honorable Court erred in overruling the Fifty-sixth Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding that the Railroad Commission of Texas may, without further notice or hearing, require the distributing companies purchasing gas from defendant to cease paying defendant a rate for gas purchased by them in excess of 32 cents.

Fifty-Seventh Assignment of Error

This Honorable Court erred in overruling the Fifty-seventh Assignment of Error presented in the Application,

which asserts that the Court of Civil Appeals erred in holding that "if the 32 cent rate is declared valid herein, defendant can have no further interest in any order the Commission may make with regard to requiring the various distributing companies to pay in excess of such rate and to pass the 8 cent reduction on to the ultimate consumers," because under the holding of the Court that corporate entities are to be ignored and that defendant is to be deemed [fol. 269] to be engaged in the business of distributing gas locally to domestic consumers, defendant has a most vital interest in law and in fact in the burner tip rates.

(Statement omitted).

Fifty-Eighth Assignment of Error

This Honorable Court erred in overruling the Fifty-ninth Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in failing and refusing to sustain defendant's Cross-Assignment of Error No. 2 presented in the Court of Civil Appeals, and copied in full in the Fifty-ninth Assignment of Error in the Application. (Application, pp. 303-304.)

(Statement omitted).

Fifty-Ninth Assignment of Error

This Honorable Court erred in overruling the Sixtieth Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in rendering judgment for plaintiffs because not only does Article 6059 of the Revised Civil Statutes of Texas, as construed, deny to defendant due process of law in violation of its rights under the Fourteenth Amendment to the Constitution of the United States, and not only does the Court treat this [fol. 270] case and answer of defendant as an appeal thereunder, but defendant has been compelled to follow the procedure outlined thereunder upon representations by plaintiffs that every constitutional and legal right to which it might be entitled would be fully safeguarded and that it would be entitled to the same sort of trial to which it would have been entitled in its suit in the Federal Court upon the basis of which representations the Federal Court stayed proceedings therein with the result that not only does defendant fail to get the kind of trial to which it would have been en-

titled in the Federal Court but is denied the opportunity of ever obtaining the same.

(Statement omitted).

Sixtieth Assignment of Error

This Honorable Court erred in overruling the Sixty-first Assignment of Error presented in the Application, which complains of the action of the Court of Civil Appeals in approving the exclusion of approximately \$334,000.00 per annum as operating income on account of temperature adjustments which the evidence in this case shows that the defendant never received.

[fol. 271] Sixty First Assignment of Error

This Honorable Court erred in overruling the Sixty-second Assignment of Error presented in the Application. (Application, p. 307.)

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[fol. 272] The above Motion for Rehearing of Application for Writ of Error bears endorsement showing that same was filed in the Supreme Court of Texas on October 22, 1936.

[fol. 273] IN SUPREME COURT OF TEXAS

[Title omitted]

ORDER OVERRULING MOTION FOR REHEARING—December 30,
1936

The motion for rehearing herein by the plaintiff in error having heretofore been presented to the Court, and after due consideration of same, it is ordered that said motion be and it is hereby in all things overruled.

(No opinion filed.)

[fol. 274] IN SUPREME COURT OF TEXAS

CERTIFICATE OF CLERK

I, S. A. Philquist, Clerk of the Supreme Court of Texas, do hereby certify that the 132 pages immediately preceding

this page contain true and correct copies of entries on the Application Docket of the Supreme Court of Texas and on the Motion Docket of said Court, and of orders of said Court showing the refusal of the Application for Writ of Error, Number 21,600, styled Lone Star Gas Company, Plaintiff in Error, vs. The State of Texas, et al., Defendants in Error, from Travis County, Third District, and the overruling of the Motion for Rehearing filed by plaintiff in error. I further certify that the portions of the Application for Writ of Error and the Motion for Rehearing hereinbefore copied have been correctly copied from the originals thereof.

I further certify that on the 30th day of December, 1936, the entire record in said cause, excepting only the Application for Writ of Error, the reply thereto, and the Motion for Rehearing and copies of the orders of the Court of Civil Appeals, was by me returned to R. E. Moore, Clerk of the Court of Civil Appeals for the Third Supreme Judicial District of Texas.

In Testimony Whereof, witness my hand and the seal of the Supreme Court of Texas, this 30th day of April, A. D. 1937.

S. A. Philquist, Clerk, Supreme Court of Texas.
(Seal Supreme Court of the State of Texas.)

[fol. 275] IN COURT OF CIVIL APPEALS FOR THE THIRD
SUPREME JUDICIAL DISTRICT OF TEXAS.

[Title omitted]

ORDER OF THE CHIEF JUSTICE DENYING PETITION FOR APPEAL
TO THE SUPREME COURT OF THE UNITED STATES—Filed February 10, 1937

On this the 9th day of February, A. D. 1937, came the Lone Star Gas Company, appellee in the above styled and numbered cause, through its counsel, and presented to me its Petition for Appeal to the Supreme Court of the United States, its Assignments of Error, its Prayer for Reversal, its Statement as to the Jurisdiction of the Supreme Court on Appeal, and forms of an Order Allowing the Appeal, Citation and Cost Bond on Appeal; all being presented in connection with said Petition for Appeal; and said Petition

for Appeal and other papers presented therewith being duly considered, I, James W. McClendon, Chief Justice of the Court of Civil Appeals for the Third Supreme Judicial [fol. 276] District of Texas, hereby decline to allow said appeal.

Dated at Austin, Texas, this the 10th day of February, A. D. 1937.

(Signed) James W. McClendon, Chief Justice, Court of Civil Appeals for the Third Supreme Judicial District of Texas. (Seal.)

[File endorsement omitted.]

[fols. 277-278] [File endorsement omitted]

IN SUPREME COURT OF THE UNITED STATES

[Title omitted]

PETITION FOR APPEAL, ASSIGNMENT OF ERRORS, AND PRAYER FOR REVERSAL—Filed February 17, 1937

Submitted February 12, 1937, Benjamin N. Cardozo, Justice

[fol. 279]

PETITION FOR APPEAL

Considering itself aggrieved by the final judgment entered in the above entitled cause on July 10, 1935, by the Court of Civil Appeals for the Third Supreme Judicial District of Texas, wherein the Supreme Court of Texas on October 6, 1936, denied appellant's Petition for a Writ of Error and on December 30, 1936, overruled appellant's Motion for Rehearing of said Petition, and wherein the Chief Justice of said Court of Civil Appeals on February 10, 1937, declined to allow an appeal to the Supreme Court of the United States, Lone Star Gas Company, appellee in said Court of Civil Appeals, plaintiff in error in seeking a review of said cause by the Supreme Court of Texas, and now appellant in this appeal from said judgment, prays that an appeal be allowed to the Supreme Court of the United States herein to the end that the case may be reviewed by that Court, and for an order fixing the amount of the bond on such appeal.

The case is one wherein appellant challenges on grounds arising under the Constitution of the United States the validity of a rate order, of a legislative nature, of the Railroad Commission of Texas, dated September 13, 1933, as applied and sought to be enforced against appellant, reducing appellant's rates from 40¢ to 32¢ per thousand cubic feet applicable to appellant's trunk line transportation of natural gas and its sale and delivery at wholesale to distributing companies at city gates in Texas.

The grounds of attack duly pleaded in the court of first instance are: First, that the transportation and delivery [fol. 280] through high pressure lines to distributing companies at city gates in Texas of gas originating on appellant's lines in the State of Oklahoma as well as of gas produced or purchased by appellant in Wheeler County, Texas, and brought into and across the State of Oklahoma into Texas constitutes interstate commerce and that the attempted regulating and fixing of appellant's rates of charges for gas thus transported and delivered violates the Interstate Commerce Clause of the United States Constitution; and, second, that the prescribed rate is confiscatory and repugnant to the Due Process Clause of the Fourteenth Amendment to the United States Constitution.

The litigation originated in a suit filed September 22, 1933, by appellant, in the United States District Court for the Western District of Texas, seeking to enjoin the enforcement of the rate order upon the grounds before mentioned arising under the Constitution of the United States. The Commission, joined by the State of Texas and the Attorney General thereof, then filed this suit against the appellant in the State court in an effort to bring appellant within the jurisdiction of the State court, as provided in Section 266 of the Judicial Code (28 U. S. C. A., Sec. 380), alleging in their Second Amended Original Petition, upon which the trial was had, that they desired to have the constitutional questions raised by appellant in its attack on the rate order determined in the courts of the State.

In the State court suit appellees sought an injunction upon final hearing restraining appellant from violating the rate order and further asked that the enforcement of said [fol. 281] order be stayed pending final judgment. The stay order was entered in the State court and subsequently the Federal Court, conforming to what it deemed proper procedure under Section 266, entered an order staying all

proceedings in that Court and restraining the enforcement of the rate until final determination of this cause.

Appellant, after unsuccessfully resisting this procedure and reserving its exceptions, answered in the State court setting up its defenses before mentioned grounded on the Federal Constitution, and the trial was there had. On jury findings favorable to appellant judgment was entered in its favor permanently enjoining the enforcement of the rate order.

On appeal the Court of Civil Appeals, after stating that appellant's defenses based on the Commerce and Due Process Clauses had been pleaded and after considering same, held that appellant was not engaged in interstate commerce in transporting, delivering and selling gas at wholesale at city gates of cities and towns in Texas, that the rate order was not void as a direct burden on interstate commerce, and that its enforcement would not confiscate appellant's property and that it was valid in every particular.

Thereupon, in due time, appellant filed its Motion for Rehearing assigning therein as error the holding and judgment of the Court of Civil Appeals enforcing the rate order as against its charges of conflict with the Commerce and Due Process Clauses of the Federal Constitution, and other rulings made initially by the Court of Civil Appeals which were claimed to result in a denial of due process in violation of the Fourteenth Amendment to the Federal Constitution.

[fol. 282] Said Motion being overruled, it then, in due time, as permitted by the State law, filed its Petition for Writ of Error asking the Supreme Court of Texas to review the judgment of the Court of Civil Appeals. This Petition having been refused on October 6, 1936, appellant then, in due time, as permitted by law, filed its Motion for Rehearing of said Petition, which Motion was entertained and overruled by the Supreme Court of Texas on December 30, 1936. Whereupon the judgment of the Court of Civil Appeals here sought to be reviewed became final.

It therefore appears that this is a suit wherein there has been drawn in question an Act of the State of Texas, legislative in character, upon the ground that the same is repugnant to the Constitution of the United States and in which the decision of the highest court of the State, in which a decision in the suit could be had, has been in favor

of the validity thereof. The case is clearly one falling within the jurisdiction of this Court.

Appellant submits herewith its statement, in accordance with Rule 12 of the rules of this Court, more particularly disclosing the basis upon which it is contended that the Supreme Court of the United States has jurisdiction to review this cause on appeal.

ASSIGNMENT OF ERRORS

Appellant Lone Star Gas Company assigns the following errors committed by the Court of Civil Appeals in entering its judgment, affirming and sustaining the validity of said rate order, as against appellant's attack thereon based on [fol. 283] the Commerce Clause of the Federal Constitution and the Due Process Clause of the Fourteenth Amendment to the Federal Constitution; and it shows that in making each of the rulings complained of in sections I to VI of this Assignment of Errors the Court of Civil Appeals denied to appellant rights secured to it by the Commerce Clause of the Federal Constitution; and that each of the rulings complained of in sections VII to XV of this Assignment of Errors deprives appellant of its property without due process of law in violation of the Due Process Clause of the Fourteenth Amendment to the Constitution of the United States.

I

The Court of Civil Appeals erred in holding that appellant pipe line company was not engaged in interstate commerce in transporting and selling gas produced or purchased by it in Wheeler County, Texas, and transported in its high pressure line through Oklahoma and thence back into the State of Texas to the city gates in Texas where delivery is made to local distributing companies.

II

The Court of Civil Appeals erred in holding that the rate order did not interfere with and constitute a direct burden upon interstate commerce and appellant's right to engage therein, in violation of Article I, Section 8, Paragraph 3 of the Constitution of the United States, and was not void and unenforceable in so far as it was sought to be enforced

as to gas produced or purchased in Wheeler County, Texas, transported in appellant's high pressure pipe line A [fol. 284] through Oklahoma and ultimately delivered in wholesale quantities at city gates in Texas.

III

The Court of Civil Appeals erred in holding that the gas produced or purchased by appellant in Oklahoma and transported by its pipe lines to Texas does not move in interstate commerce when it reaches the Texas city gates for delivery.

IV

The Court of Civil Appeals erred in holding that the rate order did not interfere with and constitute a direct burden upon interstate commerce and appellant's right to engage therein, in violation of Article I, Section 8, Paragraph 3 of the Constitution of the United States, and was not void and unenforceable in so far as it was sought to be enforced as to gas purchased and produced in Oklahoma, transported in appellant's high pressure pipe lines from Oklahoma and ultimately delivered in wholesale quantities at city gates in Texas.

V

The Court of Civil Appeals erred in upholding the rate order in question as against appellant's attack thereon grounded upon the claim that it operated as a direct regulation of interstate commerce, in which appellant was engaged, in violation of the Commerce Clause of the Constitution of the United States.

[fol. 285]

VI

The Court of Civil Appeals erred in failing to hold that the order of the Railroad Commission was void and the rate therein prescribed unenforceable as to all gas sold by appellant pipe line company in Texas inasmuch as the same was void and unenforceable in part (as to gas sold and delivered in interstate commerce) and inasmuch as the same was indivisible.

VII

The Court of Civil Appeals having held that the courts of this State, in this suit involving the validity of the rate

order in question, challenged as being confiscatory and for that reason violative of the Due Process Clause of the Fourteenth Amendment, are without power to weigh the evidence and settle the conflicts in the evidence and pass their independent judgment on the facts as well as the law, relating to the tendered issue of confiscation, erred in holding that the rate order was valid. This ruling of the Court denied to appellant that adequate judicial review granted it by the Due Process Clause of the Fourteenth Amendment to the Federal Constitution, and the enforcement of the rate order against appellant under such circumstances will deprive it of its property without due process of law, a violation of the Fourteenth Amendment to the Federal Constitution.

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VIII

The Court of Civil Appeals erred in refusing to consider, and in holding to be immaterial, appellant's evidence as to the value of its integrated pipe line properties, located both in Texas and in Oklahoma, and its revenues and expenses incident to the operation of such properties appellant thereby being deprived of its right to attack the rate and the findings of the Commission upon which it was based on the same theory and by the same character of evidence underlying the promulgation of the rate, and thus being denied an adequate judicial review of the rate order and deprived of due process of law, contrary to the provisions of the Fourteenth Amendment to the Constitution of the United States.

IX

The Commission, having found that appellant's property and business was an integrated system and having valued the same as such and the Court of Civil Appeals having found that appellant was not engaged in interstate commerce in transporting and supplying gas at the city gates of cities and towns in Texas, and appellant having introduced evidence showing that the order of the Commission would not permit it to receive in any of the years involved as much as a six per cent (6%) return on the fair value of its integrated public service properties, the Court of Civil Appeals erred in holding that the evidence was insufficient as a matter of law to raise an issue of fact as to the confiscatory character of the rate.

[fol. 287]

X

The Court of Civil Appeals, having held that appellant is not engaged in interstate commerce in the transportation and delivery of gas at the city gates in Texas, erred in holding that it was necessary to segregate appellant's integrated pipe line property and business as between interstate and intrastate commerce in order to test the validity of the rate.

XI

The Court of Civil Appeals erred in holding that appellant failed to make a proper segregation of its properties and operations as between interstate and intrastate commerce.

XII

The Court of Civil Appeals erred in holding that the evidence introduced by appellant based upon a segregation of its properties and operations as between interstate and intrastate commerce proved nothing material to the case.

XIII

The Court of Civil Appeals erred in holding that, since appellant failed to make a proper segregation of its properties as between interstate and intrastate commerce, it did not adduce the quantum and character of proof necessary to establish the invalidity of the rate as being confiscatory.

[fol. 288]

XIV

The Court of Civil Appeals erred in approving a segregation of appellant's properties and operations as between interstate and intrastate commerce that was based merely on geographical location of the property and not upon the way in which the property was used and the business conducted.

XV

The Court of Civil Appeals erred in upholding the validity of the rate order as against appellant's claim that same was confiscatory in its operation and was violative of appellant's rights under the Due Process Clause of the Fourteenth Amendment to the Constitution of the United

States in the following particulars, and in each of said particulars appellant was deprived of its property without due process of law, in violation of the Fourteenth Amendment to the Constitution of the United States:

(a) In adopting a rate base of \$40,256,862.39 which did not include the value of appellant's production system property consisting of natural gas reserves, both producing and non-producing, gas wells, gas well equipment, drilling tools and equipment used and useful in the public service in Texas, all of such property costing approximately \$5,200,000.00.

(b) In approving the elimination of all operating expenses actually incurred in good faith in the operation of appellant's production system property amounting to the [fol. 289] sum of \$232,759.70 for 1933, and \$222,752.66 for the twelve months period ended March 31, 1934.

(c) In adopting appellees' estimate of \$831,946.08 per annum for depreciation, depletion and amortization reserve accruals, which did not embrace any sum for depreciation, depletion or amortization on appellant's production system property, gas wells, gas well equipment, drilling tools and equipment used and useful in the Texas public service.

(d) In adopting a formula in lieu of actual operating expenses and an allowance for annual accruals to reserve for depreciation, depletion and amortization and a fair return on appellant's gas reserves, gas wells, gas well equipment and other production system property, consisting of an addition to operating expenses of a sum of money arrived at by applying the average well head price paid by appellant to independent producers to the volume of gas produced by appellant from its own Texas gas reserves, such substituted sum being insufficient by approximately \$426,000.00 to provide for operating expenses, the necessary annual reserve accrual for depreciation, depletion and amortization (as estimated by appellees' witnesses) and a 6% return which the Commission held was the minimum to which appellant was entitled) on the actual cost of such property.

(e) In adopting a rate base of \$40,256,867.39, which did not include the value of appellant's property located in

Oklahoma actually and necessarily used and useful in transporting to Texas for sale and delivery therein gas purchased and produced in Oklahoma.

[fol. 290] (f) In approving the elimination from operating expenses of all expenses actually and in good faith incurred in the operation of appellant's properties located in Oklahoma; actually and necessarily used and useful in transporting to Texas for sale and delivery therein, gas purchased and produced in Oklahoma and the disallowance of any depletion or amortization of such properties.

(g) In adopting an arbitrary addition to appellant's actual revenues of \$441,240.12 for the year 1933, and \$268,829.64 for the twelve months ended March 31, 1934, to compensate for assumed deficiencies in actual gas sales due to abnormally warm weather.

(h) In adopting an annual allowance for depreciation, depletion and amortization reserve accruals of \$831,946.08, which amount was insufficient for current and future requirements without being supplemented by an assumed credit balance in the reserve account of \$5,000,000. at the date of inquiry.

(i) In adopting a rate base containing no allowance to cover the item of going concern value.

(j) In failing to hold that a six per cent return was confiscatory.

(k) In approving a rate which would not permit appellant to earn the six per cent return which the Railroad Commission held was the minimum to which it was entitled on the fair value of its Texas public service properties as determined by appellees' witnesses upon the trial if appellant's production system property be included in said evaluation and actual operating expenses and revenues be allowed, and if effect be given to a 2% per annum reserve accrual for depreciation, depletion and amortization allowed by the Commission.

(l) In approving a rate which appellant's un rebutted evidence showed would not permit it to earn the minimum

upon the fair value of its integrated properties as determined by the Commission after computing accruals to the reserve for depreciation, depletion and amortization at the rate approved by the Commission.

(m) In approving a rate which appellant's uncontradicted evidence clearly showed would not permit it to earn an excess of 3.78% on its fair value, and 4.65% on the actual cost of its properties used and useful in intrastate commerce in Texas as determined by appellant's segregation between interstate and intrastate commerce, based upon use, after allowing for annual accruals to the reserve for depreciation, depletion and amortization at the rate of %, being the rate adopted by the Commission.

(n) In holding immaterial and refusing to consider or permit the trial court to consider appellant's evidence showing that the depreciated fair value of its integrated properties was \$69,738,021.16, whereas the Commission found the undepreciated value of such property to be \$46,246,617.3.

(o) In holding that appellant's evidence showing that fair annual allowance for accruals to the depreciation, [fol. 292-293] depletion and amortization reserve was not less than \$3,465,123.36, as compared with the Commission's allowance of only \$983,697.98, for its entire integrated property and business, was of no probative force.

PRAYER FOR REVERSAL

For which errors appellant Lone Star Gas Company prays that said judgment entered in the above entitled cause by said Court of Civil Appeals on July 10, 1935, be reversed.

Dated this the 10th day of February, 1937:

Lone Star Gas Company, by Roy C. Coffee, Marshall Newcomb, Ogden K. Shannon, Jr., Ben H. Powell, Charles L. Black, Its Attorneys.

[fol. 294] IN SUPREME COURT OF THE UNITED STATES

[Title omitted]

ORDER ALLOWING APPEAL AND FIXING SECURITY FOR COSTS—
Filed February 17, 1937

[fol. 295] Lone Star Gas Company, appellant in the above entitled cause, having prayed for the allowance of an appeal in this cause to the Supreme Court of the United States from the judgment made and entered in the above entitled suit by the Court of Civil Appeals for the Third Supreme Judicial District of Texas, on July 10, 1935, and from each and every part thereof, and having presented and filed its petition for appeal, assignment of errors, prayer for reversal and statement as to jurisdiction, pursuant to the statutes and rules of the Supreme Court of the United States in such case made and provided;

It Is Now Here Ordered that an appeal be and the same is hereby allowed to the Supreme Court of the United States from the Court of Civil Appeals for the Third Supreme Judicial District of Texas in the above entitled cause, as provided by law, and it is further ordered that the clerk of said Court of Civil Appeals shall prepare and certify a transcript of the record, proceedings and judgment in this cause and transmit the same to the Supreme Court of the United States, so that he shall have the same in said Court within forty days from this date;

And it is Further Ordered that security for costs on appeal be fixed in the sum of Five hundred (\$500) Dollars.
[fols. 296-307] Dated this 12th day of February, 1937.

Benjamin N. Cardozo, Associate Justice of the Supreme Court of the United States.

[fol. 308]

[File endorsement omitted]

[fol. 309] IN SUPREME COURT OF THE UNITED STATES

[Title omitted]

PRÆCIPUE FOR TRANSCRIPT—Filed March 11, 1937

To the Clerk of the Court of Civil Appeals for the Third Supreme Judicial District of Texas:

You are hereby requested to make a transcript of record to be filed in the Supreme Court of the United States pursuant to an order of appeal allowed on February 12, 1937, in the above entitled cause by Mr. Justice Cardozo, and heretofore filed with you in this case, and to include in such transcript of record the following from the record on file in this cause:

A

From the Transcript certified on September 6th, 1934, by Geo. H. Templin, District Clerk, Travis County, Texas, setting forth proceedings in Cause No. 53,033 on the docket of [fol. 310] the Fifty-third District Court of Travis County, Texas, and filed in this Court of Civil Appeals on September 12, 1934, the following:

Page of
Transcript

1. Plaintiff's Second Amended Original Petition, eliminating the following: 2- 25
 Paragraph 11 (page 13 through first paragraph page 15); third paragraph page 16; Exhibits A and B.
2. Order of Court Staying Proceedings 26- 28
3. Second Amended Answer of Lone Star Gas Company, eliminating the following: 31-144
 Paragraphs 1, 2, and 5, down to the last paragraph on page 43 under Subdivision A.
 Paragraphs 1, 2, 3, 4, 5, 7, 9, and 10, under Subdivision B.
 Paragraphs 1, 2, 3, 4, 5, 6, 7, 8, and 10, under Subdivision C.
 Paragraphs 1 to 27, inclusive, and 29 and 30 under Subdivision D;
 The sentence beginning fourteen lines from the top of page 120 with the words "the said City gate rate price."

The sentence beginning the third line from the top on page 131, continuing to the end of the paragraph.

Section (d) page 136.

[fol. 311]

The clause beginning with the words "and operates" in the fourth from the last line on page 139, Section (i).

First paragraph of page 140 except first six lines, Section (11).

The clause "will deny to defendant freedom of contract and will impair the obligation of contract" lines 11 and 12 of paragraph 12, page 141.

4. Plaintiffs' Second Supplemental Petition, eliminating the following:

146-161

Paragraphs 1 to 5, inclusive.

Next to the last paragraph page 151.

Paragraph 9 page 152.

The sentence beginning twelve lines from the bottom of page 153.

The last eight lines beginning with the words "Which would have made" of the first paragraph page 154.

The clause beginning with the word "that" in the seventh line page 158, and ending with the word "and" in the eleventh line of the same page.

The clause beginning with the words "one-half" and ending with the word "Texas" in the twelfth and thirteenth lines page 159.

The clause beginning with the words "and during" and ending with the words "twenty per cent" in the sixteenth, seventeenth and

[fol. 312]

eighteenth lines from the top of page 159.

The clause beginning with the words "and upon" and ending with the words "through it" in the twentieth, twenty-first, and twenty-second lines from the top of page 159.

Page of
Transcript

5. Defendant's Second Supplemental Answer, eliminating the following: 162-196
 Paragraphs 1, 2, 5, 6, 8, 9 (a, b, c, and e),
 10, 11, 13, 16, 17, 18, 19, 21, 22, and 23.
 6. Order Overruling Defendant's Pleas to the Jurisdiction and Pleas in Abatement 200-201
 7. Order Overruling Exceptions and Demurrers of Defendant Lone Star Gas Co., eliminating the following: 203-206
 Paragraph 2 page 203 down to last paragraph page 206.
 8. Defendant's request for a peremptory instruction 215-216
 9. Plaintiffs' Motion for an Instructed Verdict filed July 5, 1934 217-218
 10. Plaintiffs' motion for Instructed Verdict filed July 16, 1934 220-221
 11. Defendant's Motion to Strike Plaintiffs' Exhibit No. 8, eliminating the following: 223-228
 Paragraphs 1, 6, and 10.
- [fol. 313]
12. Defendant's Request for a Peremptory Instruction at the close of testimony 229-230
 13. Defendant's Exceptions to the Court's Charge, including only the following: 238-274
 Paragraphs 1, 2, 3, 4, 15 (f, k, n, o, and q),
 16a, 16b (a, c, and d), 17, and 18.
 14. Charge of the court 515-518
 15. Verdict of the Jury 519
 16. Plaintiffs' First Amended Motion for New Trial, including only the following: 535-554
 Paragraphs 4, 5; 15, 16, 17, 18, 19, and 20.
 17. Judgment, eliminating portions setting out court's charge 526-531
 18. Order Overruling Plaintiffs' First Amended Motion for New Trial 560-
 19. Defendant's Cross Assignments of Error, including only the following:
 Paragraphs 5, 15, 16, 17, 18, 19, 20, 21, 23 and 24.

From the Statement of Facts setting forth the testimony given and the exhibits offered and received in evidence at the trial of said Cause No. 53,033 in the 53rd District Court of Travis County, Texas, such Statement of Facts consisting of five separately bound volumes of question and answer testimony, numbered 1 to 5, inclusive, eight separately bound volumes of exhibits, numbered 6 to 12, inclusive, exhibit No. 28, consisting of eight unbound volumes, exhibit No. 30, consisting of one unbound volume, and exhibit No. 42, consisting of one unbound volume, which Statement of Facts was filed, after final approval, by Geo. H. Templin, District Clerk, on September 7, 1934, and was filed in this Court of Civil Appeals on the 12th day of September, 1934, the following:

(1) The entire question and answer testimony contained in bound volumes Nos. 1 to 5, inclusive.

	Book of Exhibits	Pages
(2) Plaintiff's Exhibits:		
Exhibit No. 4	6	3577-3592
Exhibit No. 5	6	3593-3619
Including only the following pages: 3596, 3610, 3611, 3617, and 3618.		
Exhibit No. 6	6	3620-3663
Including only the following pages: 3623, 3624, 3643 to 3645, inclusive.		

[fol. 315]

Exhibit No. 7	6	3664-3679
Including only the following pages: 3667 to 3674, inclusive.		
Exhibit No. 8	6	3680-3697
Including only the following pages: 3683 to 3686, inclusive; 3692; 3694 to 3696, inclusive.		

(3) Defendant's Exhibits:

Exhibit No. 1	7	3712-3835
Including only the following pages: 3713 to 3749, inclusive.		
Exhibit No. 3	7	3842-3930

	Book of Exhibits	Pages
Exhibit No. 4	7	3931-3932
Exhibit No. 5	7	3934-3937
Exhibit No. 6	7	3939-3942
Exhibit No. 8	7	3949-3952
Exhibit No. 9	7	3954-3957
Exhibit No. 10	7	3959-3962
Exhibit No. 11	7	3964-3966
Exhibit No. 12	7	3968-3970
Exhibit No. 13	7	3972-4038

Including only the following pages:
3976 to 3979, inclusive; 3985; 3989 to
3993, inclusive; 3999; 4001 to 4006, in-
[fol. 316] clusive; 4012 to 4016, inclu-
sive; 4022 to 4037, inclusive.

Exhibit No. 14	7	4039-4041
Exhibit No. 15	7	4043-4047
Exhibit No. 16	7	4048-4053
Exhibit No. 17	7	4054-4058
Exhibit No. 18	7	4059-4063
Exhibit No. 19	7	4064-4068
Exhibit No. 21	7	4071-4072
Exhibit No. 22	7	4073-4078
Exhibit No. 23	7	4079-4084
Exhibit No. 24	7	4085-4090
Exhibit No. 26	7	4095-4096
Exhibit No. 27	7	4097-4102
Exhibit No. 28, Eight unbound volumes		4104-8608

Including only the following pages:

(Note: The individual pages of Ex-
hibit 28 were not numbered in the rec-
ord and therefore the pages herein-
after referred to are to the page num-
ber of the Exhibit.)

Volume I: 1 to 10, inclusive, 272,
276, 296, 300 to 302, inclusive, 348 to
350, inclusive, 403.

Volume II: 969, 1050, 1085 to 1086,
inclusive, 1097, 1100, 1112 to 1113, in-
clusive.

[fol. 317] Volume III: 1311, 1384 to
1385, inclusive.

	Book of Exhibits	Pages
Volume IV: 1983.		
Volume V: 2475.		
Volume VI: 3515; 3516 to 3517, inclusive; 3518 to 3519, inclusive; 3520 to 3521, inclusive; 3560; 3566; 3567; 3582; 3583; 3604 to 3605, inclusive; 3644.		
Volume VII: 1, 8, 71, 79, 225, 233, 532.		
Volume VIII: 52, 61, 71, 141.		
Exhibit No. 30, one unbound volume . . .		8612-8856
Including only the following pages: 36 to 37, inclusive, 142 to 145, inclusive.		
Exhibit No. 31	10	8858-8865
Including only the following pages: 8860.		
Exhibit No. 32	10	8866-8896
Including only the following pages: 8891, 8895 (Giving totals only).		
[fol. 318] Exhibit No. 37	10	8974-9227
Including only the following pages: 8975 to 8978, inclusive.		
Exhibit No. 39	10	9232-9239
Exhibit No. 40	10	9240-9251
Including only the following pages: 9240 to 9248, inclusive.		
Exhibit No. 41	10	9252-9257
Exhibit No. 42, One unbound volume . . .		9259-9582
Including only the following pages: 2 to 5, inclusive; 16 to 18, inclusive; 19 to 23, inclusive; 28; 37; 38; 39; 41; 43; 45; 79; 132 (last paragraph only); 136; 142 to 160, inclusive; 171 to 178, inclusive; 187; 198 to 208, inclusive; 217 to 224, inclusive; 236 to 244, inclusive; 246 to 255, inclusive; 276 to 280, inclusive; 285; 287; 288; 290; 293 to 301, inclusive; 307 to 312, inclusive.		
Exhibit No. 43	12	9585-9590
Exhibit No. 44	12	9591-9599
Exhibit No. 45	12	9600-9722

	Book of Exhibits	Pages
Including only the following pages: 1 to 52, inclusive.		
[fol. 319] Exhibit No. 46.....	12	9723-9772
Including only the following pages: 9724 to 9726; 9729 to 9735, inclusive; 9756; 9765 to 9771, inclusive.		
Exhibit No. 47.....	12	9773-9776
Exhibit No. 48.....	12	9777-9784
Including only the following pages: 9778; 9779-9780, (totals and percentages only); 9781-9783 (totals and percentages only).		
Exhibit No. 49.....	12	9785-9792
Exhibit No. 50.....	12	9793-9795
Exhibit No. 51.....	12	9796-9798

C.

Miscellaneous matters:

1. Appellee's counter propositions, cross assignments of error and propositions based thereon contained in appellee's original brief filed in the Court of Civil Appeals.

2. Opinion, order and judgment of the Court of Civil Appeals, showing the date of its rendition.

3. Appellee's motion for rehearing filed in the Court of Civil Appeals showing the date on which it was filed.

[fol. 320] 4. Opinion, order and judgment of the Court of Civil Appeals overruling appellee's motion for rehearing showing the date of its rendition.

5. Docket entry and any other entries and orders of the Court of Civil Appeals showing the filing of appellee's application for writ of error to the Supreme Court of Texas, showing the date of its filing and that the same together with the certified record in this cause were duly transmitted to the Supreme Court of Texas and show the date on which such transmittal occurred.

6. All orders certified to the Supreme Court of Texas by and from the Court of Civil Appeals in connection with the application for writ of error except those hereinabove specifically designated.

7. Transcript of all proceedings had and done in the Supreme Court of Texas in this cause, which transcript ap-

pellee has requested from the Clerk of said Supreme Court and which has been or will be filed with you. Such transcript shall include, inter alia, the following:

(a) All orders and docket entries of the Supreme Court of Texas showing that the application for writ of error and record certified from this court were received and filed therein, giving the date of such filing.

[fol. 321] (b) The following parts of said Application for Writ of Error: (1) Beginning with the title of the cause (page 1) and extending to the end of the "Introductory Statement of the Nature and Result of the Suit," near the bottom of page 11 (printed copy); (2) all assignments of error and propositions thereunder contained in said Application; and (3) the prayer with signatures of counsel, appearing on page 309 (printed copy).

(c) Order and judgment of the Supreme Court of Texas overruling the application for writ of error showing the date thereof.

(d) Docket entries and notations showing the filing by plaintiff in error of a motion for rehearing of the application for writ of error showing the date thereof.

(e) The following parts of said motion for rehearing: (1) Beginning with the title of the cause (page 1) and extending to the heading "Part I" on page 2 (printed copy); (2) all assignments of error and propositions thereunder contained in said motion for rehearing; and (3) the prayer of said motion and signatures of counsel (page 111, printed copy).

(f) Order and docket entries of the Supreme Court of Texas showing that said motion for rehearing was entertained and overruled by the Supreme Court of Texas, showing the date thereof.

8. Docket entries and any other orders or notations of the Court of Civil Appeals showing receipt by the Court of Civil Appeals from the Supreme Court of Texas of the record in this cause. In this connection showing that the entire record in this cause is now in the possession of the Court of Civil Appeals and yourself.

9. Order of the Chief Justice of the Court of Civil Appeals refusing appellant's request for the allowance of an appeal to the Supreme Court of the United States, showing the date of its filing in this court.

[fol. 322] 10. This præcipe and acknowledgment of service thereof by appellees' counsel, showing the date same was filed in this court.

D

Appeal papers:

1. The original of appellant's petition for appeal, assignments of errors and prayer for reversal with all endorsements appearing thereon and showing the date same was filed in this court.

2. Statement as to jurisdiction on appeal with all endorsements appearing thereon and showing the date same was filed in this court.

3. Order allowing appeal and fixing security for cost with all endorsements appearing thereon and showing the date same was filed in this court.

4. Citation signed by Mr. Justice Cardozo on February 12, 1937, directed to appellees herein with all endorsements appearing thereon and showing the date same was filed in this court.

5. Bond for cost executed February 9th, 1937, and approved by Mr. Justice Cardozo with all endorsements appearing thereon and showing the date same was filed in this court.

6. Notice and statement required by paragraph 2, Rule 12, of the Rules of the Supreme Court of the United States with all endorsements appearing thereon and showing the date same was filed in this court.

[fol. 323] 7. Acknowledgment of service of appeal papers required to be served on appellees' counsel by paragraph 2, Rule 12 of the Rules of the Supreme Court of the United States signed by counsel for appellees on February 17, 1937, showing the date of such acknowledgment and with all endorsements appearing thereon and showing the date same was filed in this court.

E

Clerk's certificates:

1. Your separate certificate as to the papers designated in Section D, Nos. 1 to 7, inclusive, thereof.

2. Your general certificate as to the record, papers and documents designated by this entire præcipe.

Witness the execution hereof on this the 8th day of March, A. D. 1937.

Roy C. Coffee, Marshall Newcomb, Ogden K. Shannon, Ben H. Powell, Charles L. Black, Attorneys for Appellant, Lone Star Gas Company.

[fol. 324] Service of a copy of this præcipe is hereby acknowledged on this, the 11th day of March, 1937.

Scott Gaines, First Assistant Attorney General and Acting Attorney General and Attorney for the Appellees.

[fol. 325] IN SUPREME COURT OF THE UNITED STATES

[Title omitted]

ORDER ENLARGING TIME FOR APPELLEES' FILING OF PRÆCIPE
FOR CONTENTS OF RECORD—Filed March 16, 1937

This 13th day of March, 1937, good cause for this order having been shown by Appellees, it is ordered that Appellees be and they are hereby granted an enlargement of sixty days from and after the expiration of the original ten day period allowed by Rule 10 of the Supreme Court of the United States, within which to file in the Court of Civil Appeals their præcipe designating the additional portions of the record desired by Appellees to be incorporated in the transcript on appeal to the Supreme Court of the United States.

(Signed) Benjamin N. Cardozo, Associate Justice of the Supreme Court of the United States.

[File endorsement omitted.]

(Orders enlarging time to file record and docket cause omitted, originals being on file with the Clerk of the Supreme Court of the United States.)

[fol. 326] IN SUPREME COURT OF THE UNITED STATES

[Title omitted]

APPELLEES' COUNTER PRÆCIPE FOR TRANSCRIPT—Filed May
17, 1937

In accordance with Section 2 of Rule 10 of the Supreme Court of the United States, Appellees hereby request you

to include in the transcript of record to be filed in the Supreme Court of the United States pursuant to an order of appeal allowed on February 12, 1937 in the above entitled cause by Mr. Justice Cardozo, the following portions from the record on file in your Court in this cause:

[fol. 327] A. Appeal Papers:

1. The order signed by Mr. Justice Cardozo on March 13, 1937, and filed in your Court on March 16, 1937 extending for a period of sixty days the time provided by rule within which Appellees may file their counter præcipe designating additional matters to be included in the transcript.
2. Copy of this counter præcipe.

B. The Record from the District Court:

Include all portions of the record, proceedings, oral testimony, exhibits, and documentary evidence not already designated by Appellant in its præcipe served upon Appellees herein on March 11, 1937, contained in the Volumes and parts hereinafter described or referred to in Cause No. 53,033 in the 53rd District Court of Travis County, Texas, and the same Cause on appeal, being No. 8,238 in your Court and Application No. 21,600 in the Supreme Court of Texas; so that the portions of such record heretofore designated by Appellant, plus the portions hereby designated, shall make the transcript embrace the whole of such record herein below referred to in this subdivision (B), and in subdivision "C" hereof:

I. The statement of facts made in the hearing on pleas in abatement and pleas to the jurisdiction in the District Court; such statement of facts consisting of one Volume of 160 pages, plus three pages of certificates and agreement, including all exhibits therein, to-wit:

Plaintiff's Exhibits Nos. 1 to 6, inclusive; and Defendant's Exhibits Nos. 1 to 5, inclusive; and the index, covers, and file marks.

II. The transcript of pleadings and proceedings in the District Court consisting of one Volume, index, and pages numbered 1 to 600, inclusive, together with Exhibits therein included and thereto attached.

III. The oral testimony taken and transcribed in the trial in the District Court, consisting of Books 1, 2, 3, 4, and

3
4
7
9

5, and indexes; containing besides the indexes, pages 1 to 3560, inclusive; plus the six pages of final certificates, agreements, etc. at the conclusion of Book 5, and the certificates at the end of each Volume.

[fol. 328] IV. All Exhibits admitted in evidence and excluded from evidence in the trial in the District Court, and consisting of:

1. Book 6, Plaintiff's Exhibits 1 to 11, inclusive, the pages of which are numbered in red serially from 3561 to 3710, inclusive, together with indices, certificates, etc.

2. Book 7, Defendant's Exhibits 1 to 27, inclusive, the pages thereof being numbered in red serially from 3711 to 4102, inclusive, together with indices, certificates, etc.

3. Defendant's Exhibit No. 28 consisting of Books 8-A, 8-B, 8-C, 8-D, 8-E, 8-F, 8-G, and 8-H, the pages thereof being numbered in red serially from 4103 to 8608, inclusive; said Volumes being likewise numbered Volumes I to VIII, inclusive, the pages thereof being likewise numbered in black serially in each volume.

V. Book 9-A, being Defendant's Exhibit 29, the pages thereof being numbered in red serially 8609 to 8610-A, inclusive.

VI. Book 9-B, being Defendant's Exhibit 30, the pages thereof being numbered in red serially 8611 to 8856, inclusive.

VII. Book 10, being Defendant's Exhibits Nos. 31 to 41, inclusive, the pages thereof being numbered in red serially 8857 to 9257, inclusive.

VIII. Book 11, being Defendant's Exhibit No. 42, the pages thereof being numbered in red serially from 9258 to 9583, inclusive.

IX. Book 12, being Defendant's Exhibits 43 to 51, inclusive, the pages thereof being numbered in red serially 9584 to 9798-A, inclusive, plus other certificates.

C. The Record Made Before the Railroad Commission of Texas, and Excluded from Evidence by the Judge of the District Court, and Consisting of the Following Volumes of Oral Testimony and Exhibits:

I. Oral Testimony:

Index consisting of one Volume, the pages being numbered [fol. 329] bered serially 1 to 32, inclusive; also Volumes 1

to 89, inclusive, the pages of said Volumes 1 to 89, inclusive being numbered serially 1 to 11,232, inclusive.

II. Exhibits:

Exhibit 1—Sponsored by D. A. Hulcy, entitled "Public Service Property and Amount Available for Depreciation and Return—Twelve Months ended December 31st, 1931."

Exhibit 2—Sponsored by D. A. Hulcy, entitled "Public Service Property and Amount Available for Depreciation and Return—Twelve Months ended April 30th, 1932."

Exhibit 3—Sponsored by D. A. Hulcy, entitled "Public Service Property and Amount Available for Depreciation and Return—Twelve Months ended June 30th, 1932."

Exhibit 4—Sponsored by D. A. Hulcy, entitled "Public Service Property and Amount Available for Depreciation and Return—Twelve Months ended July 31st, 1932."

Exhibit 5—Sponsored by D. A. Hulcy, entitled "Public Service Property and Amount Available for Depreciation and Return—Twelve Months ended August 31st, 1932."

Exhibit 6—Consisting of nine Volumes, each bound in black Morocco, numbered Volumes I to IX, inclusive, sponsored by E. A. Steinberger and Ed C. Connor, and being entitled "Lone Star Gas Company—Appraisal—Cost of Reproduction New and Present Value—January 1st, 1932—Public Service Plant, Property and Business";

Volume I thereof containing pages numbered serially from 1 to 554, inclusive;

Volume II thereof containing pages numbered serially from 555 to 1129, inclusive;

Volume III thereof containing pages numbered serially from 1130 to 1710, inclusive;

Volume IV thereof containing pages numbered serially from 1711 to 2266, inclusive;

[fol. 330] Volume V thereof containing pages numbered serially from 2267 to 2739, inclusive;

Volume VI thereof containing pages numbered serially from 2740 to 3381, inclusive;

Volume VII thereof containing pages numbered serially from 3382 to 4031, inclusive;

Volume VIII thereof containing pages numbered serially from 1 to 544, inclusive; and

Volume IX thereof containing pages numbered serially from 545 to 682, inclusive.

Exhibit 7—Sponsored by E. A. Steinberger, pages 1 to 27, inclusive, entitled “Lone Star Gas Company—Leaseholds—Undeveloped—Determination of Present Value as of January 1, 1932.”

Exhibit 8—Sponsored by F. E. Kendrick and J. H. Dunn, being list of gas reserves as of January 1, 1932. (It is our understanding that this Exhibit has become lost in some way; if you are unable to locate it, let the transcript go without including it.)

Exhibit 9—Sponsored by D. A. Hulcy, pages 1 to 36, inclusive, entitled “Lone Star Gas Company—Appraisal of Gas Reserves—January 1st, 1932.”

Exhibit 10—Sponsored by Ed C. Connor, one page chart, entitled “Chart showing growth of Properties and Business under Basis of Reproduction.”

Exhibit 11—Sponsored by Witness Smith of Sanderson & Porter, consisting of five Volumes bound in brown Morocco, designated parts I to V, inclusive, entitled “Lone Star Gas Company—Exclusive of Fort Worth Division,” and being a finding of Reproduction Cost New as of January 1st, 1932, the pages thereof being numbered serially from 1 to 2244, inclusive.

Exhibit 12—Sponsored by Witness Smith of Sanderson & Porter, pages 1 to 16, inclusive, entitled “General Costs”.

Exhibit 13—Sponsored by Witness Smith of Sanderson & Porter, pages 1 to 23, inclusive, entitled “Going Value”.

Exhibit 14—Sponsored by Witness Smith of Sanderson & Porter, pages 1 to 206, inclusive, entitled “Inspection of Condition of Physical Property, as of January 1, 1932”.

[fol. 331] Exhibit 15—Sponsored by Witness Smith of Sanderson & Porter, being a map showing location of test holes for observing the Physical Deterioration of pipe lines. (It is our understanding that this Exhibit was lost in some way before the record was transmitted to Court of Civil Appeals; if you are unable to locate it, then let the transcript go without including it.)

Exhibit 16—Sponsored by Witness Smith of Sanderson & Porter, one page, entitled “Summaries—Reproduction Cost, Reproduction Cost less Depreciation, as of January 1, 1932”.

Exhibit 17—Sponsored by P. McDonald Biddison, pages 1 to 224, inclusive, and map, entitled “Report on Condition of Property, as of January 1, 1932”.

Exhibit 18—Sponsored by Ed C. Connor, pages 1 to 175, inclusive, entitled “Depreciation Analysis—Determination of Annual Reserve Accruals for Various Items of Depreciable Property”.

Exhibit 19—Sponsored by Ed C. Connor, pages 1 to 53, inclusive, entitled “Depreciation Analysis—Replacements, Removals and Abandonments—Steel Pipe, December 31, 1931”.

Exhibit 20—Sponsored by Ed C. Connor, pages 1 to 6, inclusive, entitled “Depreciation Analysis—Relation of Failures of Original Units, and Replacements of Original Units, and Replacements of Replacements”.

Exhibit 21—Sponsored by Ed C. Connor, pages 1-2, inclusive, entitled “Depreciation Analysis—Application of Annual Reserve Rates to Reproduction Cost New of the Public Service Property—Exclusive of Fort Worth Division”.

Exhibit 22—Sponsored by Ed C. Connor, pages 1 to 17, inclusive, entitled “Current Quotations on Bonds and Other Senior Securities Natural Gas, Manufactured Gas, and Electric Utilities”.

Exhibit 23—Sponsored by D. A. Hulcy, one page entitled “Calculation of Depreciation on Autos and Drill Tools—Charged to Expenses—Twelve Months ended December 31, 1931”.

Exhibit 24—Sponsored by D. A. Hulcy, one page entitled “Public Service Property—Statement showing Property Account and Net Additions to Property Account by Years”.

[fol. 332] Exhibit 25—Sponsored by D. A. Hulcy, pages 1 to 3, inclusive, entitled “Public Service Property and Amount Available for Depreciation and Return—Twelve Months ended December 31st, 1932”.

Exhibit 26—Sponsored by J. A. Phillips, entitled “Report on Special Investigation of Records of Lone Star Gas Company, December 31, 1932—Volume I”, and containing pages numbered serially 1 to 95, inclusive.

Exhibit 27—Sponsored by S. W. Freese, entitled “Report on Gas Leaseholds of Lone Star Gas Company, December 31, 1931—Volume II”, and containing pages numbered serially 1 to 37, inclusive.

Exhibit 28—Sponsored by S. W. Freese, entitled “Report on Reproduction Cost New Appraisal of Physical Properties of Lone Star Gas Company, December 31, 1931—Volume III”, and containing pages numbered serially 1 to 111, inclusive.

Exhibit 29—Sponsored by S. W. Freese, entitled "Report on Properties, Business, Rate Base, and Annual Requirement for Depreciation, Obsolescence, Replacements, and Amortization of Lone Star Gas Company, December 31, 1931—Volume IV", and containing pages numbered serially 1 to 48, inclusive.

Exhibit 30—Sponsored by S. W. Freese, pages 1 to 8, inclusive, entitled "Miscellaneous Studies Lone Star Gas Company—Investigation".

Exhibit 31—Sponsored by Edgar G. Hill of Ford, Bacon and Davis Construction Corporation, pages 1 to 19, inclusive, containing data on Excavation and Backfilling Cost.

Exhibit 32—Sponsored by Ed C. Connor, containing two pages of charts of Graphic Mortality Curves.

Exhibit 33—Sponsored by D. A. Huley, one page containing Degree Day Deficiency Data, Dallas, Texas, 1931 and 1932.

Exhibit 34—Sponsored by D. A. Huley, pages 1-3, entitled "Public Service Property and Amount Available for Depreciation and Return—Twelve Months ended April 30th, 1933".

[fol. 333] Exhibit 35—Sponsored by D. A. Huley, two pages, entitled "Statement of Pipe Purchases—Through Pittsburgh Office".

Exhibit 36—Sponsored by S. W. Freese, pages 1 to 23, inclusive, entitled "Corrections to Exhibits 27, 28, and 29—Lone Star Gas Company Investigation".

D. From the Record in the Court of Civil Appeals and in the Supreme Court of Texas:

1. Original brief filed in the Court of Civil Appeals by State of Texas, et al., appellants in that Court.
2. Original brief filed in the Court of Civil Appeals by Lone Star Gas Company, appellee in that Court.
3. Printed copy of Application for Writ of Error filed by Lone Star Gas Company in the Court of Civil Appeals and later transmitted to and filed in the Supreme Court of Texas in this cause.

Dated at Austin, Texas, this 17th day of May, A. D., 1937.

Wm. McCraw, Attorney General of Texas; Alfred M. Scott, Assistant Attorney General, Counsel for Appellees.

Service of a copy of the above counter præcipe is hereby acknowledged on this the 17th day of May, 1937.

Roy C. Coffee, Marshall Newcomb, O. K. Shannon, Jr.,
Ben H. Powell, Charles L. Black, Attorneys for Ap-
pellant Lone Star Gas Company.

[File endorsement omitted.]

[fol. 334] [File endorsement omitted.]

[fol. 335] IN SUPREME COURT OF THE UNITED STATES

[Title omitted]

STIPULATION AS TO RECORD—Filed June 17, 1937

[fol. 336] Whereas, on February 17, 1937, appellant Lone Star Gas Company obtained acknowledgment of service of and duly filed its præcipe with the Clerk of the Court of Civil Appeals for the Third Supreme Judicial District of Texas, designating certain portions of the record to be typed and incorporated into a transcript of the record to be certified by the Clerk of the Court of Civil Appeals to the Supreme Court of the United States, and practically all of the portions thus designated have been typed by said Clerk; and,

Whereas, on March 13, 1937, appellees applied for and secured sixty days' extension of time within which to file their counter præcipe and have duly filed said counter præcipe on May 17, 1937; and,

Whereas, in their said counter præcipe appellees have designated the entire State Court record, including all of the record made before the Railroad Commission of Texas, to be included in the record certified to the Supreme Court of the United States; and,

Whereas, the record thus designated by the appellees is very lengthy, consisting of thousands of pages, and must be filed with the Clerk of the Supreme Court of the United [fol. 337] States at Washington not later than July 5, 1937, and it is impossible for the Clerk of the Court of Civil Appeals, with the force he has available, to complete the typing of said record and have the same in Washington within the time mentioned;

Therefore it is stipulated:

1. That the parties hereto will attempt to secure an order from the Court of Civil Appeals permitting its Clerk to duly certify and forward to the Clerk of the Supreme Court of the United States for filing in said Court the original record in this cause, consisting of the Transcript and the Statement of Facts and also the Railroad Commission Record as filed in the Court of Civil Appeals.

2. That if said order is obtained the Clerk of the Court of Civil Appeals may duly certify to the Supreme Court of the United States as being the transcript of the record on this appeal the following:

(a) The original record above described together with the Railroad Commission Record as filed in the Court of Civil Appeals;

(b) All matters, orders, opinions, judgments and proceedings in the Court of Civil Appeals as designated in section C of appellant's præcipe. Also all orders and proceedings in the Supreme Court of Texas on appellant's [fol. 338] Application for Writ of Error and Motion for Rehearing thereof as designated in section C of appellant's præcipe. Certified copy of the orders and proceedings in the Supreme Court of Texas has been filed with the Clerk of the Court of Civil Appeals. The intent is to include under this heading all of the matters, orders, opinions, judgments and proceedings designated in section C of appellant's præcipe;

(c) All appeal papers filed with the Clerk of the Court of Civil Appeals and designated in section D of appellant's præcipe;

(d) Appellant's præcipe and appellees' counter præcipe together with copy of order extending time to file counter præcipe; and copy of orders extending time to file record and docket cause;

(e) The following documents called for in appellees' counter præcipe:

(1) Brief filed in the Court of Civil Appeals by State of Texas, et al., appellants in that Court;

(2) Copy of brief filed in the Court of Civil Appeals by Lone Star Gas Company, appellee in said Court;

(3) Copy of Application for Writ of Error filed by Lone Star Gas Company in the Supreme Court of Texas.

[fols. 339-342] (f) This stipulation.

(g) Copy of order of the Court of Civil Appeals permitting original record to be forwarded to the Supreme Court of the United States in lieu of transcript thereof.

3. This stipulation is not intended as a waiver either by appellant or appellees of the right to seek a finding and order as to the costs incurred in supervising and printing the record in case either party causes unnecessary parts of the record to be printed.

Dated 17th day of June, 1937.

Roy C. Coffee, Marshall Newcomb, O. K. Shannon, Jr., Ben H. Powell, Charles L. Black, Attorneys for Appellant. Wm. McCraw, Attorney General of Texas, Alfred M. Scott, Assistant Attorney General, Attorneys for Appellees.

[fol. 343] IN COURT OF CIVIL APPEALS OF TEXAS

CLERK'S CERTIFICATE

I, R. E. Moore, Clerk of the Court of Civil Appeals for the Third Supreme Judicial District of Texas, at Austin, do hereby certify as follows:

That the following described volumes and documents, transmitted by me to the Clerk of the Supreme Court of the United States on the appeal prosecuted by the Lone Star Gas Company from the judgment of said Court of Civil Appeals in cause No. 8238, entitled the State of Texas, et al, Appellants, vs. Lone Star Gas Company, Appellee, comprise the entire record on appeal designated by the præcipe of appellant and counter præcipe of appellees and by the stipulation of the parties dated May 17, 1937, said stipulation appearing on pages 334-339 of the volume entitled "Final Volume containing Proceedings in the Court of Civil Appeals and in the Supreme Court of Texas and on Appeal to the Supreme Court of the United States:"

1. Transcript certified by the clerk of the District Court of Travis County, Texas, on September 6, 1934, and filed in the Court of Civil Appeals on September 12, 1934, consisting of 600 pages;

2. Statement of Facts consisting (a) of 5 volumes of oral testimony, Numbered 1 to 5, inclusive, and containing 3560 pages; and (b) of 15 books of exhibits, Numbered 6, [fol. 344] 7, 8-A, 8-B, 8-C, 8-D, 8-E, 8-F, 8-G, 8-H, 9-A, 9-B, 10, 11 and 12, all of said 20 volumes of oral testimony and exhibits having been filed in the District Court of Travis County, on September 7, 1934, and in the Court of Civil Appeals on September 12, 1934.

3. Statement of facts on hearing of plea in abatement and pleas to jurisdiction, September 7, 1934, in the District Court, and September 12, 1934, in the Court of Civil Appeals.

4. The following documents called for in the appellees' counter præcipe and in the stipulation of the parties: (a) Brief of Appellants, State of Texas, et al, filed in the Court of Civil Appeals; (b) Brief of Appellee Lone Star Gas Company filed in the Court of Civil Appeals; and (c) Application for Writ of Error filed by the Lone Star Gas Company in the Supreme Court of Texas; these being identified by the file marks of the Clerk of the Court of Civil Appeals and the Clerk of the Supreme Court, respectively.

5. Railroad Commission Record, consisting of 89 volumes, containing Transcript of Testimony before the Railroad Commission of Texas, filed in the Court of Civil Appeals on September 12, 1934; also 41 books and documents constituting exhibits used in hearing before the Railroad Commission, and filed in the Court of Civil Appeals on September 12, 1934.

[fol. 345] 6. Volume entitled "Final Volume Containing Proceedings in the Court of Civil Appeals and the Supreme Court of Texas, and on Appeal to the Supreme Court of the United States," containing 342 pages immediately preceding this certificate, and containing record of all proceedings had and done in said Court of Civil Appeals in said cause and all proceedings had and done in the Supreme Court of Texas on the Application for Writ of Error filed in said Court and on motion for rehearing thereof as certified to me by the Clerk of the Supreme Court of Texas; and all appeal papers filed in my office on the appeal of appellant Lone Star Gas Company to the Supreme Court of the United States, except the "Statement as to Jurisdiction on Appeal."

The original "Statement as to Jurisdiction on Appeal," filed in the Court of Civil Appeals on February 17, 1937, is transmitted by me with the record aforesaid to the Clerk of the Supreme Court of the United States. No opposing statement was filed in my office.

7. I further certify that after this Court had overruled the motion for rehearing filed by the appellant Lone Star Gas Company, said appellant, on October 25, 1935, duly filed its Application for Writ of Error, and thereupon the said Application together with the entire record in said cause and a transcript of the proceedings in the Court of Civil Appeals were immediately forwarded by me to the [fol. 346] Clerk of the Supreme Court of Texas; and that on the 30th day of December, 1936, the Clerk of the Supreme Court of Texas filed with me certified copies of the orders of said Court refusing the Application for Writ of Error and overruling the motion for rehearing thereon, and at the same time the entire record in said cause, excepting only the Application for Writ of Error, the reply thereto, the motion for rehearing of said Application for Writ of Error, and the certified copies of the orders of the Court of Civil Appeals previously forwarded by me to the Supreme Court, was returned to this Court where it now permanently remains. All of which facts duly appear from docket entries and the files in my office.

In Testimony Whereof, witness my hand and the seal of the Court of Civil Appeals for the Third Supreme Judicial District of Texas, at Austin, this 10th day of August, A. D. 1937.

R. E. Moore, Clerk of the Court of Civil Appeals for the Third Supreme Judicial District of Texas.
(Seal.)

[fol. 347] IN COURT OF CIVIL APPEALS OF TEXAS

EXCERPTS FROM BRIEF FOR APPELLANTS

Appellants' Assignments of Error

1

The Court erred in defining the term "used and useful" in paragraph 3 of the Court's main charge. Such error was

duly and seasonably objected and excepted to by plaintiffs and was pointed out to both the Court and adverse counsel prior to the Court's reading of his main charge to the jury. Plaintiffs' objection and exception and the Court's error in defining said terms are again pointed out. Such definition was very prejudicial to plaintiffs, an incorrect statement of the law, and on the weight of the evidence, all of which entitles plaintiffs to a new trial.

2

The Court erred in giving the third paragraph of his charge to the jury, reading as follows:

"By the term 'used and useful' is meant the property of the defendant actually being used by the defendant in the production, transportation, sale and delivery of natural gas to its customers; and also such property as has been acquired by defendant in good faith and now held for use in the reasonably near future in order to enable it to supply and furnish adequate and uninterrupted gas service,"

because the above and foregoing charge and definition was upon the weight of the evidence, an incorrect statement of law, and necessarily caused the jury to include certain items and property in their evaluation of the defendant's property about which there was a sharp controversy on both sides without in any way giving the jury any right of applying [fol. 348] their independent judgment or being allowed to consider the same as a fact question.

Plaintiffs would show to the Court in this connection that by appropriate objection and exception, the above and foregoing erroneous definition was duly and pointedly brought to the Court's attention, and to the attention of adverse counsel, prior to the Court's reading of his main charge to the jury.

3

The Court erred in refusing to permit the record plaintiffs to introduce the record and statement of facts in the hearing of this case before the Railroad Commission. Said record and statement of facts were duly proved up as being true and correct and were offered in evidence by plaintiffs, in their rebuttal testimony, to show that the order of the Railroad Commission was not unreasonable and unjust to

the defendant, and the Court sustained the defendant's objection thereto and excluded the same from the jury.

4

The Court erred in sustaining the defendant's objection to the offer by plaintiffs to introduce the record and statement of facts adduced in the hearing of this cause before the Railroad Commission of Texas, to which action of the court plaintiffs duly excepted.

5

The Court erred in permitting the witness Ed C. Connor to testify over plaintiffs' objection and exception that the Railroad Commission of Texas had never before fixed a rate of return lower than seven per cent upon the fair value or [fol. 349] rate base of a natural gas company in any hearing that had been theretofore held by such Railroad Commission.

6

The Court erred in sustaining the objection made by defendant to the plaintiffs' proffer of evidence from the witness D. A. Hulcy on cross-examination that the temperature conditions caused a loss of business in the year of 1933, and the two years immediately preceding. Such testimony was relevant to explain why defendant's revenues had decreased during an abnormal period of time, and was excluded over plaintiffs' exception.

7

The Court erred in sustaining the defendant's objection to plaintiffs' effort to prove on cross-examination by the defendant's witness, D. A. Hulcy, the condition of the temperature during the years of 1931, 1932, 1933, and in sustaining such objection by stating in the presence of the court and jury:

"Yes, sir, the objection is sustained. That hasn't a thing to do with this case,"

because such language constituted a comment on the weight of the evidence by the Court and was calculated to, and did mislead and prejudice the jury.

8

The Court erred in stating from the bench during the course of the trial, and while the witness D. A. Hulcy, a witness for the defendant, was being cross-examined by the plaintiffs in regard to the dummy set of books held by the Lone Star Gas Company in the city of Dallas, Texas, by [fol. 350] stating in the presence and hearing of the jury that counsel should not make any further statement or ask any more questions in regard to said set of dummy books, because every lawyer knew that the State or the Attorney General either had the right or did not have the right of access to the same, and that counsel should not attempt to go any further into the matter or interrogate said witness Hulcy any further in regard to the same, because such action was calculated to and did prejudice the jury against the plaintiffs.

9

The Court erred in refusing to set aside the verdict of the jury and grant plaintiffs a new trial herein on account of the closing argument made in the case by attorney Karl F. Griffith for the defendant, as is fully shown by plaintiffs' bill of exceptions Number One.

10

The Court erred in refusing to set aside the verdict of the jury and grant plaintiffs a new trial herein on account of the closing argument made in the case by Attorney Karl F. Griffith for the defendant, as is fully shown by plaintiffs' bill of exceptions number two.

11

The Court erred in refusing to set aside the verdict of the jury and grant plaintiffs a new trial herein on account of the closing argument made in the case by Attorney Karl F. Griffith for the defendant, as is fully shown by plaintiffs' bill of exceptions number three.

12

The Court erred in refusing to set aside the verdict of the [fol. 351] jury and grant plaintiffs a new trial herein on account of the closing argument made in the case by Attor-

ney Karl F. Griffith for the defendant, as is fully shown by plaintiffs' bill of exceptions number five.

13

The Court erred in admitting in evidence, over the plaintiffs' objections and exception, defendant's styled volumes 7 and 8 of Exhibit 28, sponsored by the witness Ed C. Connor, and having to do with the overhead expenses that would be incurred by the defendant on a reconstruction cost new basis.

14

The Court erred in admitting in evidence, over the plaintiffs' objection and exception, defendant's styled exhibit No. 42, sponsored by the witness Ed C. Connor, which said exhibit contained various data and purported information, as prepared by said witness, on the annual reserve accruals for said defendant, Lone Star Gas Company.

15

The Court erred in allowing the defendant to introduce in evidence defendant's styled Exhibit No. 4, sponsored by the witness D. A. Hulcy, over the objection and exception of plaintiffs, which same showed certain operating expenses calculated by said witness, and made comparisons with the order of the Railroad Commission of Texas.

16

The Court erred in admitting in evidence the defendant's styled Exhibit No. 5, sponsored by the witness D. A. Hulcy, over the objection and exception of plaintiffs, said exhibit reflecting certain bookkeeping figures and comparisons to [fol. 352] the order of the Railroad Commission, as made by said witness.

17

The Court erred in admitting in evidence defendant's styled Exhibit No. 6, sponsored by the witness D. A. Hulcy, over objection and exception of the plaintiffs, said exhibit reflecting certain bookkeeping figures and comparisons, as made by said witness.

18

The Court erred in admitting in evidence defendant's styled exhibit No. 7, sponsored by the witness D. A. Hulcy,

over the objection and exception of the plaintiffs, said exhibit reflecting certain bookkeeping fixtures and comparisons, as made by said witness.

19

The Court erred in admitting in evidence defendant's styled Exhibit No. 8, sponsored by the witness D. A. Huley, over the objection and exception of the plaintiffs, said exhibit reflecting certain bookkeeping figures and comparisons, as made by said witness.

20

The Court erred in admitting in evidence defendant's styled Exhibit No. 9, sponsored by the witness D. A. Huley, over the objection and exception of the plaintiffs, said exhibit reflecting certain bookkeeping figures and comparisons, as made by said witness.

21

The Court erred in admitting in evidence defendant's styled Exhibit No. 10, sponsored by the witness D. A. Huley, [fol. 353] over the objection and exception of the plaintiffs, said exhibit reflecting certain bookkeeping figures and comparisons, as made by said witness.

22

The Court erred in admitting in evidence defendant's styled Exhibit No. 11, sponsored by the witness D. A. Huley, over the objection and exception of the plaintiffs, said exhibit reflecting certain bookkeeping figures and comparisons, as made by said witness.

23

The Court erred in admitting in evidence defendant's styled Exhibit No. 12, sponsored by the witness D. A. Huley, over the objection and exception of the plaintiffs, said exhibit reflecting certain bookkeeping figures and comparisons, as made by said witness.

24

The Court erred in admitting in evidence defendant's styled Exhibit No. 13, sponsored by the witness D. A. Huley, over the objection and exception of the plaintiffs, said exhibit reflecting certain bookkeeping figures and comparisons,

to the order of the Railroad Commission, as made by said witness.

25

The Court erred in admitting in evidence defendant's styled Exhibit No. 14, sponsored by the witness D. A. Huley, over the objection and exception of the plaintiffs, said exhibit reflecting certain bookkeeping figures and comparisons, as made by said witness.

[fol. 354]

26

The Court erred in admitting in evidence defendant's styled Exhibit No. 32, offered in evidence over the plaintiff's objection and exception, and sponsored by the witness E. A. Steinberger, because same included undeveloped gas leaseholds, which showed upon the face of said exhibit to not be used or useful in the public service.

27

The Court erred in sustaining the special exceptions of the defendant, Lone Star Gas Company, to paragraph 11 of plaintiffs' second amended original petition, wherein it was sought by plaintiffs to recover the difference between the higher forty cent (40c) rate, now in effect, and the lower thirty-two (32c) cent rate, which was promulgated by said order of the Railroad Commission of Texas, because under the law, plaintiffs in this case, in the event that they should be finally successful, have a right to recover this difference for the use and benefit of the domestic consumers and users of such gas.

28

The Court erred in sustaining the defendant's special exception to the next to the last paragraph of the prayer of plaintiffs' second amended original petition, relative to the refund to the domestic consumers of gas, in the event the lower rate should finally be put in force and effect and the order of the Railroad Commission of Texas finally upheld.

29

The Court erred in not requiring the defendant to make a proper segregation of the value of its property in Texas, and the value of its property in Oklahoma, as same applied to the amount of business done in each of said states.

The Court erred in not requiring the defendant to make a proper segregation of the value of its property, as same applied to interstate and intrastate commerce.

The trial court erred in not setting aside the verdict of the jury and granting a new trial herein, because said defendant wholly failed to segregate its Oklahoma and Texas property and the business done by it, insofar as same applied to interstate and intrastate commerce.

The trial court erred in not setting aside the verdict of the jury and granting a new trial herein, because the defendant failed to discharge the burden of proof resting upon it to make a proper segregation of its interstate and intrastate business and property.

The trial court erred in admitting in evidence over plaintiffs' objections and exceptions defendant's styled exhibits numbered four to fourteen, inclusive, all prepared by the defendant's witness D. A. Hulcy, and reflecting certain book-keeping figures, purporting to show the receipts and disbursements of said defendant, and certain comparisons with the order of the Railroad Commission, because such exhibits applied to all of the defendant's operations, both in Texas and Oklahoma as a whole, without any segregation being made to show what amount of the expenses reflected by such exhibits were applicable to interstate and intrastate commerce, or the amount of business done in each of said States.

The trial court erred in admitting in evidence, over plaintiffs' objection and exception, volumes one to six of defendant's exhibit No. 28, all prepared by the witness E. A. Steinberger, such exhibit purporting to show an inventory with unit prices of all of said defendant's property, both

in Texas and Oklahoma, because there was no segregation or allocation between the two states or between interstate and intrastate commerce.

35

The trial court erred in admitting in evidence over plaintiffs' proper objection and exception, defendant's styled exhibit No. 31, estimating the value of defendant's gas leaseholds and sponsored by the witness, D. A. Huley, because such exhibit applied to the entire property of defendant as a whole, and did not show any segregation between Oklahoma and Texas property or business.

36

The court erred in admitting in evidence, over plaintiffs' proper objection and exception, volumes seven and eight of defendant's styled exhibit No. 28, sponsored by the witness C. Connor, and purporting to show overhead values in the aggregate sum of twenty-four million dollars, which same were based upon a reproduction cost new of defendant's property, because said exhibits included the property of the defendant located both in Texas and Oklahoma without any segregation or allocation between the two states or between the amount of business done in each of said State.

37

The court erred in admitting in evidence, over plaintiffs' [fol. 357] proper objection, and exception, defendant's styled exhibit No. 37, relating to the percent condition of defendant's property, and sponsored by the witness P. MacDonald Biddison, because such exhibit did not show any segregation of any kind between interstate and intrastate commerce, Oklahoma and Texas property or business.

38

The court erred in admitting in evidence, over plaintiffs' objection and exception, defendant's styled exhibit No. 40, sponsored by the witness E. A. Steinberger, and having to do with the reproduction cost new of all of defendant's property, because no segregation was shown in such exhibit between the business done in Texas and Oklahoma and between the property located or used in each State.

The trial court erred in admitting in evidence, over plaintiffs' objection and exception, defendant's styled exhibit No. 41, with reference to the annual rate of reserve accrual, as applied to the estimated cost of reproduction and sponsored by the witness Ed C. Connor, because such exhibit did not contain or show any segregation between Texas and Oklahoma property or business.

The trial court erred in admitting, over plaintiffs' objection and exception, the defendant's styled exhibit No. 42, sponsored by the witness Ed C. Connor, and dealing with the annual reserves accruals required for said defendant upon the basis of a reproduction cost new of defendant's property, because such exhibit did not show any segregation between Oklahoma and Texas property or business.

[fol. 358]

The trial court erred in refusing to grant the plaintiffs' first requested motion for an instructed verdict in plaintiffs' favor and against the defendant. Said motion was duly requested and presented to the court after the defendant had finished with all of its direct testimony in chief and rested. At the time of the presentation of such motion, said defendant had failed to prove by clear and satisfactory evidence that the order of the Railroad Commission of Texas was unreasonable and unjust as to it and the court erred in not granting such first requested motion for an instructed verdict.

The court erred in refusing to grant the plaintiffs' timely requested motion for an instructed verdict which was duly presented after both sides had finally rested and after all of the evidence in the case had been finished. At the time of the request of such motion, the defendant had wholly failed to prove by clear and satisfactory evidence that the order of the Railroad Commission of Texas was unreasonable and unjust as to it.

The court erred in overruling and in refusing to grant the timely motion and request of the plaintiffs for the court

to render judgment in plaintiffs' favor and against the defendant, notwithstanding the verdict of the jury. Such motion was duly presented to the court after the verdict of the jury had been returned into the court and prior to the time of any action thereon by the court. It was clearly pointed out in such motion that the defendant had wholly failed to prove, by clear and satisfactory evidence, that such [fol. 359] order of the Railroad Commission was unreasonable and unjust as to it, and that no fact issue for the jury to pass upon was shown or proved by defendant during the trial of the case, and that consequently plaintiffs were entitled to a judgment in their favor, notwithstanding such verdict.

44

The court erred in not setting aside the verdict of the jury and granting plaintiffs a new trial herein, because all of the evidence introduced during the trial of the case clearly showed that said verdict of the jury did not have any competent, legal or relevant facts to support it. Such verdict was contrary to all of the competent evidence introduced during the trial of said cause, and being without the support of any competent or legal evidence, the court should have set the same aside and granted plaintiffs' amended motion for a new trial.

45

The court erred in not setting aside the verdict of the jury and granting plaintiffs a new trial herein, because all of the facts introduced during the trial of this cause clearly show that the defendant failed and refused to prove, by clear and satisfactory evidence, that the order of the Railroad Commission of Texas was unreasonable and unjust as to it.

46

The court erred in not setting aside the verdict of the jury and granting plaintiffs a new trial herein, because the verdict of the jury was so against the great weight of the competent evidence introduced during the trial of the case and so opposed to the great preponderance of the testimony that the same should have been set aside. Under all of the [fol. 360] competent evidence introduced during the trial of this cause, including even the evidence of the defendant

alone, the verdict of the jury, upon its face, clearly shows that it did not properly apply or consider the facts of the case, and that the verdict returned into court by it was clearly against the great weight of all evidence introduced during the trial of this cause.

Respectfully submitted, James V. Allred, Attorney General of Texas; Elbert Hooper, First Assistant Attorney General; William C. Fitzhugh, Assistant Attorney General; A. R. Stout, Assistant Attorney General, Attorneys for Appellants.

[fol. 361] IN COURT OF CIVIL APPEALS OF TEXAS

EXCERPTS FROM BRIEF FOR APPELLEE

Defendant does not deny the power and jurisdiction of the Railroad Commission to determine the reasonableness of the gate rate to be charged by it for gas which it sells in intrastate commerce, as it understands that term as applied to the facts in this case, and, subject to its rights under the Constitution of the United States and that of the State of Texas, to promulgate an order applicable to such business, fixing the price so determined to be reasonable as the gate rate to be charged.

It may even be that defendant, in the absence of plaintiffs' attempt to enforce the same, could not have obtained injunctive relief against the order of the Commission in this case, the order applying as it does to both intrastate and interstate gas, if the Commission had stopped with a finding of a reasonable rate without undertaking to prevent defendant from charging in excess thereof. *State Corporation Commission vs. Wichita Gas Company*, 290 U. S. 561, 78 L. ed. 500.

Defendant, when it offered its evidence before the Commission had no reason to assume that it would do more.

But when the Commission went further and in its order undertook to directly regulate defendant's interstate business by prohibiting it from charging in excess of 32 cents for its interstate gas, and undertook to enforce the same as to such gas it usurped powers not conferred upon it by law, in conflict with the Commerce Clause of the United

States Constitution, and in the face of clear and repeated decisions of the Supreme Court condemning such action.

[fols. 362-363] There is a legal way in which the Commission could have accomplished the result sought to be achieved in this case, if just—through the regulation of local rates. Advisedly, it has sought to accomplish the same thing by a prohibited short cut.

.

[fols. 364-365] IN SUPREME COURT OF TEXAS

EXCERPTS FROM APPLICATION FOR WRIT OF ERROR

.

It is quite true that the Commission, because of the corporate affiliation between the defendant and the distributing companies, has authority to consider, in fixing the local rates of the distributing companies, what such companies may reasonably pay and charge for the gas sold to them by defendant at the city gates. The Commission has authority to review these contracts because of the affiliation between the parties; it is assumed that because of corporate affiliation the parties in making these contracts are not dealing at arm's length. But because the Commission in fixing local distribution rates may consider what would be a reasonable charge for the gas delivered at the city gates does not imply authority to determine and fix the rate as against pipeline companies transporting the gas in interstate commerce.

.

[fols. 366-367] If these arbitrary additions to the actual revenues had not been made, the prescribed rate would have shown a return of 5.77 per cent for the year 1933 instead of 6.76 per cent—even with all of the eliminations of property and operating expenses above noted.

.

[fols. 368-369] The witness Freese admitted that with this item eliminated—an item not allowed by the Commission—defendant's return under the prescribed rate would be only 5.77 per cent.

.

[fols. 370-371]

Argument

It is clear from the opinions of the Railroad Commission (Tr. 19, Book of Exhibits 7, p. 3842) and the Court of Civil Appeals that the fixing of the gate rate to be charged by defendant for natural gas delivered by it to the distributing companies was an initial step in the work of the Commission which had for its ultimate object the fixing of rates for the distributing companies to charge for natural gas at the burner tip of the consumer. It was and is necessary for the Commission in the fixation of distributing rates to include as an expense of operation the sum paid by the local distributing companies for the gas which they receive from defendant at the city gates.

[fol. 372] If, however, the commission had only indicated an intent and purpose to determine what would be a reasonable gate rate for the distribution companies to set up as an expense of operation for gas purchased as a preliminary step in aid of the fixation of distributing rates, instead of fixing the maximum rates which defendant could charge and collect for gas delivered at the city gates, no question of interstate commerce could properly have been [fol. 373] raised (Western Dist. Co. vs. Pub. Serv. Com. of Kan., 285 U. S. 119, 76 L. ed. 655; State Corporation Commission vs. Wichita Gas Co., 290 U. S. 561, 78 L. Ed. 500) and a segregation of property between that used in interstate and intrastate commerce would have been unnecessary.

[fol. 374] SUPREME COURT OF THE UNITED STATES

ORDER EXTENDING TIME FOR DOCKETING OF CASE AND FILING
OF TRANSCRIPT OF RECORD—Filed March 13, 1937

Upon consideration of the application of Appellant herein for an extension of time within which to docket the above cause and to file the transcript thereof with the Clerk of this Court, and being of the opinion that good cause has been shown for the extension of such time,

It is Ordered that the time within which Appellant is required to docket the above cause, and to file the record

thereof, with the Clerk of this Court be and it hereby is extended to and including July 5th, 1937.

Benjamin N. Cardozo, Associate Justice of the Supreme Court of the United States.

Dated at Washington, D. C., March 13th, 1937.

[fol. 374½] [File endorsement omitted.]

[fol. 375] SUPREME COURT OF THE UNITED STATES

ORDER EXTENDING TIME FOR DOCKETING OF CASE AND FILING OF TRANSCRIPT OF RECORD—Filed June 19, 1937

Upon consideration of the joint request of counsel for appellant and appellees herein for an extension of time within which to docket the above cause and to file the transcript thereof with the Clerk of this Court, and being of the opinion that good cause has been shown for the extension of such time,

It is Ordered that the time within which Appellant is required to docket the above cause, and to file the record thereof, with the Clerk of this Court be and it hereby is extended to and including August 20th, 1937.

Benjamin N. Cardozo, Associate Justice of the Supreme Court of the United States.

Dated this 19th day of June, 1937.

[File endorsement omitted.]

[fol. 376] IN SUPREME COURT OF THE UNITED STATES

STATEMENT OF THE POINTS UPON WHICH APPELLANT INTENDS TO REPLY AND DESIGNATION OF PARTS OF THE RECORD TO BE PRINTED—Filed August 16, 1937

Comes now the appellant Lone Star Gas Company and adopts its assignments of error as its statement of the points to be relied upon, and represents that only the hereinafter designated parts of the record as filed in this Court need be printed by the clerk for the hearing of the case.

[fol. 377] The record certified to and filed in this Honorable Court in this case consists generally of proceedings had and done (a) before the Railroad Commission of Texas; (b) in the trial court, the 53rd Judicial District Court of Travis County, Texas; (c) in the Court of Civil Appeals for the Third Supreme Judicial District of Texas, the intermediate

appellate court; (d) in the Supreme Court of the State of Texas; and (e) proceedings incident to the perfecting and filing of this appeal in the Supreme Court of the United States. Therefore, this designation of portions of the record to be printed will be accordingly so classified.

A

The Railroad Commission Record

Appellant does not designate for printing any portion of the record made before the Railroad Commission of Texas.

B

The District Court Record

The proceedings in the trial court, the 53rd Judicial District Court of Travis County, Texas, are incorporated into:

(1) What is called a Transcript under the State practice, consisting of pages 1 to 600, inclusive, and containing all of [fol. 378] the pleadings, charge of the trial court, verdict of the jury, orders and judgment of the trial court, and all matters filed in the trial court, except exhibits introduced in evidence;

(2) What is called the Statement of Facts under the State practice, consisting of 5 separately bound volumes of the testimony of witnesses in Q and A form, being all of the testimony introduced in the trial court; and

(3) Books of exhibits described as follows:

(a) Five separately bound books of exhibits described as Book 6 (containing plaintiffs' Exhibits 1 to 11, inclusive); Book 7 (containing defendant's Exhibits 1 to 27, inclusive); Book 9-A (containing defendant's Exhibit 29); Book 10 (containing defendant's Exhibits 31 to 41, inclusive); Book 12 (containing defendant's Exhibits 43 to 51, inclusive);

(b) Eight separately bound red leather volumes, each styled "Lone Star Gas Company—Appraisal—Cost of Reproduction New, January 1, 1933. Public Service Plant, Property and Business," (containing defendant's Exhibit 28);

(c) One separately bound red leather volume styled "Report and Findings of Gas Reserves—Jan. 1, 1933," being defendant's Exhibit 30; and

(d) One separately bound red leather volume styled "Annual Reserve Accruals Required for Lone Star Gas Co. Jan. 1, 1933," being defendant's Exhibit 42.

[fol. 379] Appellant requests the printing of the following portions of said record made in the 53rd Judicial District Court of Travis County, Texas:

From Transcript

(as described in Section B, page 3 hereof)

	Page of Transcript
1. Plaintiffs' Second Amended Original Petition.....	2-25
But eliminating the following parts thereof:	
(a) Paragraph XI (page 13 through first paragraph on page 15);	
(b) Third paragraph on page 16;	
(c) Exhibit "A" and "B" attached to said petition.	
2. Order of Court staying proceedings.....	26-28
3. Second Amended Answer of appellant Lone Star Gas Company.....	31-144

But eliminating the following parts thereof:

- (a) Subsections 1 and 2 under Section A, pages 31 to 36;
- (b) Subsection 5 under Section A, pages 42 to 43, down to last paragraph on page 43;

[fol. 380]

- (c) Subsections 1, 2, 3, 4, and 5 under Section B, pages 45 to 53;
- (d) Subsection 7, (pages 56 to 57), under Section B;
- (e) Subsections 9 and 10 (pages 61 to 63), under Section B;
- (f) Subsections 1, 2, 3, 4, 5, 6, 7, and 8, under Section C (pages 66 to 72);
- (g) Subsection 10 under Section C (page 73);
- (h) Subsections 1 to 27, both inclusive, under Section D (pages 74 to 114);
- (i) Subsections 29 and 30 under Section D (pages 117-118);
- (j) The sentence, beginning 14 lines from the top of page 120, with the words "the said City gate price;"
- (k) The sentence beginning in the 3rd line from the top of page 131 and continuing to the end of the paragraph;
- (l) Section (d) page 136;
- (m) The clause beginning with the words "and operates" in the 13th line on page 139 and ending with the

[fol. 381]

words "United States" in the 16th line from top of the page;

(n) All of page 140, except the first sentence consisting of six lines;

(o) The language "will deny to defendant freedom of contract and will impair the obligation of contract," in lines 11 and 12 of Paragraph XII, page 141.

4. Plaintiffs' Second Supplemental Petition..... 146-161

But eliminating therefrom the following:

(a) Paragraphs I to V, inclusive, on pages 146 to 149;

(b) The next to the last paragraph on page 151, beginning with the word "Plaintiffs" and ending with the word "developed";

(c) All of Section IX on page 152;

(d) The sentence beginning in the 12th line from the bottom of page 153;

(e) The last 8 lines in Section X, page 154, beginning with the words "which would have made" and ending with the words "as herein alleged";

[fol. 382]

(f) The clause beginning with the word "that" in the 7th line from the top of page 158 and ending with the word "and" in the 11th line from the top, on the same page;

(g) The clause beginning with the words "one-half" and ending with the word "Texas" in the 12th and 13th lines on page 159;

(h) The clause beginning with the words "and during" and ending with the words "Twenty per cent" in the 16th, 17th and 18th lines from the top of page 159;

(i) The clause beginning with the words "and upon" and ending with the words "through it" in the 20th, 21st and 22nd lines from the top of page 159.

5. Defendant's Second Supplemental Answer..... 162-196

But eliminating the following:

(a) Paragraphs I, II (pages 162-167), V, VI (pages 170-175), VIII, IX (a, b, c, and e), X, XI (pages 177-181), XIII (page 183), XVI, XVII, XVIII, XIX (pages 186-191), XXI, XXII, and XXIII (pages 192-194).

[fol. 383]

6. Order Overruling Defendant's Pleas to the Jurisdiction and Pleas in Abatement..... 200-201

7. Order Overruling Exceptions and Demurrers of the Defendant Lone Star Gas Company..... 203-206

But eliminating the following:

(a) Beginning with Section II on page 203 down to the last paragraph on page 206, said last paragraph beginning with the word "accordingly."

(b) File endorsement, p. 206.

8. Defendant's Request for a Peremptory Instruction and Order of the Court refusing same. 215-216
(Eliminating file endorsement, p. 216).
9. Plaintiffs' Motion for an Instructed Verdict, filed July 5, 1934, and Order of the Court refusing same. . . . 217-219
(Eliminating file endorsement, p. 219).
10. Defendant's Motion to Strike Plaintiffs' Exhibit 8, and order of the Court overruling same. 220-225

But eliminating the following therefrom:

- (a) Paragraph I (page 220), Paragraph VI (page 222), and Paragraph X (page 224).
- (b) Eliminating file endorsement, page 225.

[fol. 384]

11. Plaintiffs' Motion for an Instructed Verdict filed July 16, 1934, and Order of the Court overruling same. . . . 226-228
(Eliminating file endorsement, page 228).
12. Defendant's Request for a Peremptory Instruction at the close of all the testimony, and Order of the Court denying same. 229-230
(Eliminating file endorsement, page 230).
13. Defendant's Exceptions to the Court's Charge. 238-274

But including only the following parts of said exceptions:

- (a) Sections I, II, III, and IV (pages 238-241);
- (b) First 3 lines of Section XV, page 260; also subsections (f), (k), (n), (o), and (q) of Section XV, (pages 262, 264, 265, 266);
- (c) Section XVI-a (pages 268-269);
- (d) Subsections (a), (c), and (d) of Section XVI-b (pages 269-270; 1st two lines of 271);
- (e) Sections XVII and XVIII (pages 271 and first five lines of 272);
- (f) Order of Court on Exceptions (page 274).

[fol. 385]

14. Charge of the Court. 515-518
(Eliminating file endorsement, page 518).
15. Verdict of the Jury. 519
16. Judgment of the Trial Court. 526-531

But eliminating the following:

- (a) The portion thereof beginning with the quoted matter on page 526 and continuing to the words "It is therefore ordered, adjudged and decreed," etc., on page 529.
- (b) Eliminating file endorsement and docket entry, pages 531-532.

17. Plaintiffs' First Amended Motion for New Trial. 535-554

But including only the following:

- (a) Paragraphs 4 and 5, page 536;

(b) Paragraphs 15, 16, 17, 18, 19, and 20, pages 539-540.

18. Order Overruling Plaintiffs' First Amended Motion for New Trial 560
(Eliminating file endorsement and docket entry, pages 560-561).

[fol. 386]

19. Defendant's Cross Assignments of Error 585-596

But including only the following:

- (a) Paragraph 5 (page 586); paragraphs 15, 16, 17, 18, 19, 20, and 21 (pages 587-593); and paragraphs 23 and 24 (pages 595-596).
(b) Eliminating file endorsement, page 596.

[fol. 387]

STATEMENT OF FACTS

The entire Statement of Facts, contained in bound Volumes 1 to 5, inclusive, pages 1 to 3560, inclusive, except the following:

From		Beginning	To (Inclusive)		Ending
Line	Page		Line	Page	
17	1		10	2	
14	3		19	3	
27	3	"We object	22	4	Mr. Shannon."
25	14		10	15	
16	15		9	16	
19	16		22	19	
3	21		5	21	
12	21				
15	21	"This exhibit	4	22	the copy"
13	22	"This	15	22	
19	22		4	23	
12	24		13	24	
23	24	"This exhibit	24	24	
10	25	"This exhibit	11	25	
14	26		8	27	
11	27	"This exhibit	21	28	
3	29		5	29	
14	36		27	36	
9	40		21	40	we are."
25	40	"This exhibit	7	41	
22	41	"This exhibit	23	41	
13	42	"This exhibit	14	42	
4	43	"This exhibit	5	43	
7	44	"This exhibit	8	44	
23	44	"This exhibit	24	44	
13	45	"This exhibit	14	45	

Statement of Facts—Continued

From		Beginning	To (Inclusive)		Ending
Line	Page		Line	Page	
5	46	"This exhibit	6	46	
21	46	"This exhibit	24	47	
18	48	"This exhibit	19	48	
24	49	"This exhibit	23	51	
[fol. 388]					
22	53		10	55	
10	57	"It is true	18	57	therefore"
25	57		22	60	
21	62		8	64	
7	65		5	71	
19	80				
23	80		19	84	
15	87		11	89	
6	90		19	91	
7	92		3	94	
4	96		8	96	
3	98		14	99	
19	100		23	100	
19	101		22	102	
10	103		10	105	
27	105		28	105	
7	108		4	111	
23	114		2	117	
15	131		7	132	
10	146		8	147	
12	147		13	147	
26	147		7	148	
11	148		12	148	
24	148		25	148	
9	149		10	149	
22	149		23	149	
6	150		7	150	
24	150		25	150	
11	151		12	151	
23	151		24	151	
7	152		8	152	
19	152		20	152	
4	153		5	153	
21	153		22	153	
19	159		20	161	
11	162		2	164	
23	164		14	173	
12	175		15	175	
10	178		16	180	
14	182		12	183	
10	200		3	201	

Statement of Facts—Continued

From		Beginning	To (Inclusive)		Ending
Line	Page		Line	Page	
7	207		11	207	
16	231		10	232	
23	234		26	234	
8	242		1	244	
20	247		24	248	
26	259		20	260	
21	272		22	272	
2	273		9	273	
10	280		14	280	
[fol. 389]					
16	284		23	284	
12	308		21	308	
11	317		23	318	
9	319		12	319	
24	321		2	322	
20	331		12	334	
24	335		1	336	
13	336		23	348	
4	349		17	349	
11	350		13	350	
10	367		14	367	
1	373		15	373	
18	375		24	384	
7	385		9	385	
15	386		3	390	
6	390		28	393	
21	397		7	398	
19	400		5	401	
23	404		20	405	
6	406		7	406	
18	406		16	418	
21	419		3	423	
20	423		2	424	
2	427		23	427	
21	439		1	440	
3	443		17	448	
19	449		14	451	
9	453		20	458	
21	461		23	461	
20	462		8	463	
19	472		12	477	
9	479		8	480	
6	485		10	485	
21	486		5	488	
24	494		25	494	
18	499		18	500	

Statement of Facts—Continued

From		Beginning	To (Inclusive)		Ending
Line	Page		Line	Page	
9	503		3	505	
26	507		4	508	
1	524		9	524	
7	526		8	526	
20	530		16	531	
7	534		23	536	
25	536		16	539	
19	539		8	542	
21	581		1	582	
17	586		2	588	
13	590		13	592	
[fol. 390]					
16	598		20	598	
16	599		22	599	
6	608		7	614	
16	614		20	688	
8	693	"For unloading	22	706	
7	707		15	714	
11	717		14	717	
11	730		23	732	
1	733		11	762	
5	764		4	766	
25	770		14	907	yes sir."
2	915	"The thought	24	1011	
3	1017		7	1017	
1	1023		6	1092	
9	1092		2	1093	
10	1097		17	1105	
21	1110		20	1113	
21	1114		13	1119	
22	1119		6	1121	
25	1121		5	1122	
19	1122		5	1125	
13	1127		16	1134	
8	1135	"Any objection	19	1135	
4	1136				
7	1136	"This exhibit	8	1136	
16	1142		2	1144	
5	1144		20	1144	
4	1147		8	1147	
1	1148				
22	1153		9	1158	
14	1159		14	1167	
13	1168		17	1168	
7	1187		10	1187	
25	1187		15	1189	

Statement of Facts—Continued

From		Beginning	To (Inclusive)		Ending
Line	Page		Line	Page	
19	1189		24	1189	
11	1195		2	1196	
24	1197		15	1198	
20	1198		25	1240	
9	1248		25	1249	
3	1250		5	1252	
20	1252		18	1253	
24	1253		1	1259	
4	1270		9	1270	
1	1271		15	1271	
22	1292		24	1292	at page 85."
9	1301		10	1301	
22	1311		25	1311	

[fol. 391]

14	1346		17	1346	
1	1347		7	1347	
6	1368	"If reference	9	1368	
24	1374		2	1375	Q"
7	1377		11	1377	
8	1378		9	1378	
15	1399		1	1400	A"
5	1404		9	1404	
13	1422		14	1422	
23	1425		7	1426	
10	1443		18	1443	
7	1451		13	1451	
14	1474		18	1474	
15	1482		24	1493	
18	1507		22	1507	
1	1508		7	1508	
11	1510		9	1512	
14	1538		19	1538	
19	1545		25	1545	
14	1557		21	1569	
3	1572		2	1574	
6	1577		8	1577	A"
12	1577		13	1577	
3	1583		16	1583	
12	1585		9	1586	
15	1588		25	1588	
13	1589		17	1589	
13	1599		19	1599	
14	1602		2	1603	A"
19	1613		4	1614	A"
3	1621		12	1621	
8	1625		12	1625	

Statement of Facts—Continued

From		Beginning	To (Inclusive)		Ending
Line	Page		Line	Page	
25	1638		14	1639	
17	1639		18	1639	Mr. Connor."
25	1639		26	1639	my answer."
1	1641		17	1641	
1	1644		11	1645	
5	1647		10	1647	
12	1654				
15	1654		24	1665	
3	1666		17	1677	
22	1677		26	1684	
13	1686		16	1686	
19	1687		20	1687	
11	1693		14	1693	
24	1718		28	1718	
24	1734				
3	1735		23	1819	
23	1820		22	1834	
[fol. 392]					
8	1836		23	1839	
3	1840	"This	24	1840	
21	1845		22	1845	
25	1845	"May it	24	1847	Mr. Fitzhugh."
13	1848		15	1849	
3	1850		1	1854	
9	1854		25	1854	
26	1856		27	1856	
21	1857	"and by	3	1861	
4	1863		16	1863	
2	1871		19	1876	
11	1877		13	1877	
4	1881		2	1897	
17	1905		19	1905	
3	1911		8	1912	
12	1912		14	1912	
5	1914	"but as	13	1914	
16	1919		15	1920	
2	1933		24	1933	
13	1935		16	1935	
22	1948		25	1949	I say."
10	1958		11	1960	
20	1961		7	1962	
4	1966		6	1966	
8	1972		7	1973	
16	2004		1	2005	
5	2021		15	2053	
10	2061		28	2062	

Statement of Facts—Continued

From		Beginning	To (Inclusive)		Ending
Line	Page		Line	Page	
9	2063		20	2063	
2	2066				
4	2066		23	2067	
6	2069		10	2069	
6	2070		10	2070	
22	2072		24	2072	
4	2073		11	2073	
12	2078		19	2078	
15	2083		20	2083	
4	2087		4	2099	
1	2105		18	2105	
2	2107		2	2122	
2	2124		15	2128	
12	2133		29	2135	
4	2142		5	2145	
24	2161		4	2162	
23	2193		7	2194	
1	2204		11	2204	

[fol. 393]

20	2209		19	2212	
9	2216		27	2216	
3	2219		4	2219	
14	2219		9	2221	
15	2222		25	2224	
15	2227		1	2228	
1	2233		22	2233	
6	2234		13	2236	
1	2237		4	2239	
17	2239		6	2248	
8	2251		9	2251	
2	2252		4	2272	
1	2273		26	2274	
19	2278		20	2278	
23	2281		2	2282	
13	2282		10	2284	
25	2284		28	2284	
1	2285		6	2285	
10	2289		15	2289	
7	2291		8	2291	
11	2293		19	2293	
15	2296	"This	17	2296	
14	2298		9	2299	
20	2302		25	2302	
21	2309		24	2309	
22	2310		23	2310	
12	2311				

Statement of Facts—Continued

From		Beginning	To (Inclusive)		Ending
Line	Page		Line	Page	
20	2311		21	2311	
10	2321		15	2321	
11	2332		1	2333	
9	2333				
5	2337				
20	2341		6	2343	
22	2346				
5	2347		11	2347	
14	2354		6	2355	
15	2356		24	2356	
7	2357		9	2357	
1	2358		10	2358	
25	2358		1	2359	
3	2362	"This exhibit	4	2362	
1	2363		7	2366	
9	2366		20	2367	
[fol. 394]					
4	2371		10	2371	
9	2373		7	2374	
16	2383		19	2383	
11	2386		12	2386	
23	2387				
11	2406		13	2406	
8	2410		19	2410	
3	2412	"This	4	2412	
11	2412		18	2412	
6	2437		15	2437	
9	2460		7	2462	
14	2479		16	2479	
21	2479		26	2487	
4	2498		17	2498	
11	2506		2	2507	
14	2508		18	2508	
6	2510		15	2510	
3	2516		4	2516	
1	2517		16	2517	
6	2520				
1	2521		4	2521	
20	2521		24	2521	
7	2527		14	2527	
24	2541		24	2544	
2	2545		6	2560	
3	2564		16	2564	
21	2565		8	2569	
11	2571		25	2571	
3	2572		6	2572	

Statement of Facts—Continued

From			To (Inclusive)		
Line	Page	Beginning	Line	Page	Ending
9	2572	"Well	11	2572	
25	2576		12	2577	
23	2580		19	2581	
7	2583				
6	2584				
2	2585		4	2586	
9	2588		19	2588	
10	2590		15	2590	
3	2593		11	2593	
19	2593		24	2594	
7	2596	19	2596		
7	2608	9	2608		
1	2614				
26	2614	"unless it be	11	2615	into that"
23	2615		9	2616	
23	2617		4	2622	
14	2627		17	2627	
[fol. 395]					
12	2628	"This	4	2644	
7	2644		27	2644	
24	2646		26	2646	Exhibit 5"
11	2657		18	2657	your pardon."
7	2658		13	2659	
19	2659				
6	2662		9	2663	
4	2666				
8	2669		13	2669	
15	2669		21	2669	of difference."
23	2669	5	2670		
13	2673	17	2673		
21	2676				
23	2676		13	2677	
5	2678		14	2678	
23	2689		4	2690	
8	2695		10	2695	
19	2695		27	2695	
5	2710		8	2711	
16	2712		24	2712	
4	2713		8	2713	
21	2713		24	2713	
6	2716		7	2716	
8	2718		12	2718	
10	2734		12	2734	
21	2734		28	2734	
12	2738		27	2738	
19	2739		24	2739	

Statement of Facts—Continued

From		Beginning	To (Inclusive)		Ending
Line	Page		Line	Page	
4	2746				
6	2746		17	2746	
20	2748		3	2766	
10	2769		21	2769	
15	2770		11	2776	
1	2777		21	2784	
9	2785		5	2786	
24	2786		25	2786	
2	2790				
21	2791		25	2791	
24	2795				
16	2796		22	2798	Mr. Dobson."
8	2799		10	2799	
20	2799		5	2800	
24	2800		6	2801	
21	2809		1	2810	
21	2811		27	2811	
13	2817		16	2817	
8	2818		22	2818	

[fol. 396]

1	2819	8	2819
8	2822	12	2827
25	2827	8	2835
18	2846	3	2847
11	2853	17	2853
6	2854	10	2854
13	2855	22	2855
16	2856	1	2857
3	2859	20	2860
7	2861	8	2862
18	2863	6	2864
2	2866	24	2866
13	2867	5	2868
17	2869	23	2870
16	2872	8	2879
4	2882	14	2882
16	2882	17	2882
16	2885	1	2886
25	2886	3	2887
5	2887	6	2887
18	2890	3	2892
25	2892	6	2893
9	2895	25	2899
13	2901	8	2904
2	2905	15	2905
22	2905	1	2906

Statement of Facts—Continued

From		Beginning	To (Inclusive)		Ending
Line	Page		Line	Page	
5	2907		24	2908	you wish."
7	2909		10	2913	
4	2918		19	2919	
8	2926		10	2926	
8	2929		9	2929	A"
11	2929		15	2929	
9	2930	"but if	16	2930	
21	2931		25	2931	
8	2932				
3	2933		15	2934	
12	2935	"Before the	17	2935	
15	2939		5	2940	
8	2941		14	2941	
15	2942		25	2943	
6	2944		21	2944	
6	2945		10	2947	
13	2947		13	2950	
1	2951		17	2969	
18	2971		21	2971	
1	2972		11	2974	this way:"
21	2974		23	2974	
26	2975		1	2976	
[fol. 397].					
10	2976		15	2976	
18	2978		2	2979	
25	2979		1	2980	
15	2980		19	2980	
7	2981		24	2981	
4	2982		10	2982	
13	2982		14	2982	
25	2982		5	2983	
17	2983		20	2983	
3	2984		26	2984	
11	2987		15	2987	
13	2988		23	2988	
3	2989	"I think	24	2989	
13	2990		3	2991	
25	2992		14	2993	
17	2995		19	2999	
17	3000		7	3002	
11	3003	"six and	14	3003	Q"
14	3003	"Now,	12	3004	
23	3004		13	3005	
10	3006				
22	3006		4	3008	
10	3010		11	3010	

Statement of Facts—Continued

From		Beginning	To (Inclusive)		Ending
Line	Page		Line	Page	
25	3012		22	3013	
16	3028		9	3029	
18	3034		23	3034	
11	3038		4	3039	
17	3041		18	3041	
10	3044		13	3044	
12	3050				
20	3051				
10	3052				
23	3052		4	3055	
19	3074		17	3075	
6	3076		25	3079	
21	3094				
17	3095		22	3095	
11	3097		25	3097	
26	3097		9	3098	
18	3103		21	3106	
17	3107		22	3108	
4	3109		24	3109	
7	3110		21	3110	
5	3124		22	3124	
14	3125		7	3126	Mr. Griffith:"
[fol. 398]					
11	3129		15	3130	
18	3130	"This	19	3130	
1	3135		17	3135	
14	3138		16	3139	Yes,"
19	3145				
8	3146		13	3146	
1	3153		3	3153	No."
11	3162		21	3162	
8	3163		9	3163	
1	3174		11	3174	
16	3174		19	3174	and,"
10	3175		23	3176	
6	3177		18	3177	
5	3178	"This exhibit	17	3186	
20	3186	"This exhibit	24	3187	
27	3187		19	3195	
4	3196				
9	3198		21	3198	
22	3202	"This exhibit	27	3202	
13	3204		16	3204	
14	3214	"Now, in order	12	3215	
7	3217		7	3219	
10	3219		15	3219	

Statement of Facts—Continued

From		Beginning	To (Inclusive)		Ending
Line	Page		Line	Page	
10	3226		7	3258	
16	3259		22	3259	
1	3262		4	3262	
25	3262		1	3263	
19	3265		3	3266	
4	3272		22	3272	
12	3273				
15	3273		13	3274	
1	3276				
12	3276				
8	3277		13	3277	
16	3280		17	3280	
21	3281				
7	3295				
6	3296		7	3296	
25	3298		3	3299	
17	3299		19	3299	
8	3302		14	3303	
2	3304		13	3304	
2	3306		7	3306	
22	3306				
11	3307		20	3309	
22	3310		2	3311	
4	3312				
7	3312	"This exhibit	8	3312	
14	3312		21	3312	
[fol. 399]					
10	3314		11	3314	
15	3316	"con"			
12	3320		19	3320	
5	3321		5	3322	
12	3326		5	3327	
5	3330		17	3331	
9	3334		19	3335	
19	3337	"This exhibit	20	3337	
13	3342				
1	3344		7	3344	
13	3345		17	3345	
5	3346		17	3347	
26	3350		1	3351	
16	3353		5	3354	
22	3356		6	3357	
1	3361		7	3361	
23	3361		2	3367	
21	3372		4	3373	
24	3375		5	3376	

Statement of Facts—Continued

From		Beginning	To (Inclusive)		Ending
Line	Page		Line	Page	
18	3376				
14	3380		7	3390	
10	3391		21	3391	answer."
1	3401		3	3401	
9	3402		2	3403	
22	3406		8	3407	
21	3407		13	3411	
13	3413		20	3414	
10	3419		3	3420	
13	3422		15	3422	
23	3422				
10	3425				
26	3426		27	3426	
21	3434				
17	3436		6	3437	
20	3441				
3	3445		13	3445	
8	3446		3	3447	
17	3460	"This	22	3460	
13	3465		24	3465	
21	3466		26	3466	
11	3469		24	3470	
5	3475		15	3487	
1	3489		20	3490	
9	3491				
12	3491		7	3497	
9	3497	"Mr. Connor"			
[fol. 400]					
18	3497		15	3514	
17	3526		1	3527	
18	3531		19	3531	
2	3532		22	3534	
21	3535	"However,	6	3537	
24	3537		2	3538	
20	3542		1	3545	
5	3548		13	3548	
14	3552		5	3553	so much."
2	3556				
5	3556		28	3556	
5	3557		9	3557	
7	3558		9	3558	
15	3558		24	3559	

From the Exhibits

	Book of Exhibits	Pages (Inclusive)
Plaintiff's Exhibits:		
Exhibit No. 4.....	6	3577-3591
Exhibit No. 5.....	6	3593-3618
But including only the following pages: 3596, 3610, 3611, 3617, and 3618.		
Exhibit No. 6.....	6	3620-3662
But including only the following pages: 3623, 3624, 3643 to 3645, inclusive.		
[fol. 401]		
Exhibit No. 7.....	6	3664-3678
But including only the following pages: 3667 to 3674, inclusive.		
Exhibit No. 8.....	6	3680-3696
But including only the following pages: 3683 to 3686, inclusive; 3692; 3694 to 3696, inclusive.		
Defendant's Exhibits:		
Exhibit No. 1.....	7	3712-3834
But including only the following pages: 3713 to 3749, inclusive.		
Exhibit No. 3.....	7	3842-3929
Exhibit No. 4.....	7	3931-3932
Exhibit No. 5.....	7	3934-3937
Exhibit No. 6.....	7	3939-3942
Exhibit No. 8.....	7	3949-3952
Exhibit No. 9.....	7	3954-3957
Exhibit No. 10.....	7	3959-3962
Exhibit No. 11.....	7	3964-3966
Exhibit No. 12.....	7	3968-3970
[fol. 402]		
Exhibit No. 13.....	7	3972-4037
But including only the following pages: 3976 to 3979, inclusive; 3985; 3989 to 3993, inclusive; 3999; 4001 to 4006, inclusive; 4012 to 4016, inclusive; 4022 to 4037, inclusive.		
Exhibit No. 14.....	7	4039-4041

	Book of Exhibits	Pages (Inclusive)
Exhibit No. 15.....	7	4043-4046

But including only the following:

page 4043, through first paragraph of Article II;
page 4044, first paragraph of Article V;
page 4045, first paragraph of Article IX;
page 4046, third paragraph of Article IX.

Exhibit No. 16.....	7	4048-4052
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But including only the following:

page 4048 down to Art. III;
page 4049, first paragraph of Article V;
page 4051, first and third paragraphs of Article IX.

Exhibit No. 17.....	7	4054-4057
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But including only the following:

page 4054 down to Article III;
page 4055, first paragraph of Article V;
page 4056, first and third paragraphs of Article IX.

[fol. 403]

Exhibit No. 18.....	7	4059-4062
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But including only the following:

page 4059, down to Article III;
page 4060, first paragraph of Article V;
page 4061, first and third paragraphs of Art. IX.

Exhibit No. 19.....	7	4064-4067
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But including only the following:

page 4064, through first three lines Art. II;
page 4065, first paragraph of Art. V;
page 4066, first and third paragraphs of Art. X;
page 4067, first two lines.

Exhibit No. 21.....	7	4071
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But including only the following:

page 4071, except signatures and attestation.

Exhibit No. 22.....	7	4073-4077
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But including only the following:

page 4073, down to Art. III;
page 4074, first paragraph of Art. V;
page 4075, first paragraph of Art. IX;
page 4076, third paragraph of Art. IX.

[fol. 404]

	Book of Exhibits	Pages (Inclusive)
Exhibit 23.....	7	4079-4083

But including only the following:

page 4079, down to Art. II;
 page 4080, first paragraph of Art. IV;
 page 4081, first paragraph of Art. VIII;
 page 4082, first paragraph.

Exhibit 24.....	7	4085-4089
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But including only the following:

page 4085, down to Art. III;
 page 4087, first paragraph of Art. V;
 page 4087, first paragraph of Art. IX;
 page 4088, second paragraph.

Exhibit No. 26.....	7	4095
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But including only the following:

page 4095, excluding signatures and attestations.

Exhibit No. 27.....	7	4097-4101
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But including only the following:

page 4097, down to Art. III;
 page 4098, first paragraph of Art. V;
 page 4099, first paragraph of Art. IX;
 page 4100, first paragraph.

Exhibit No. 28, in eight separate volumes...		4104-8608
--	--	-----------

But including only the following pages:

Volume I:

4116 to 4128, inclusive, 4391, 4396, 4417,
 4422 to 4424, inclusive, 4471 to 4473,
 inclusive, 4527.

[fol. 405]

Volume II:

5107, 5189, 5225 to 5226, inclusive,
 5242, 5255 to 5256, inclusive.

Volume III:

5468, 5542 to 5543, inclusive.

Volume IV:

6155

Volume V:

6660

Volume VI:

7714, 7716 to 7717, inclusive, 7719
 to 7720, inclusive; 7722 to 7723,
 inclusive; 7763, 7770, 7772, 7788,
 7790, 7812 to 7813, inclusive; 7853.

Book of Pages
Exhibits (Inclusive)

Volume VII:

7867, 7876, 7940, 7949, 8096, 8105,
8404.

Volume VIII:

8513, 8523, 8534, 8605.

[fol. 406]

Exhibit No. 30, consisting of one separately
bound volume, styled "Report and Find-
ings of Gas Reserves, January 1, 1933"... .. 8611-8856

But including only the following pages:

8652, 8653, 8758 to 8761, inclusive.

Exhibit No. 31..... 10 8858-8864

But including only the following pages:

8860

Exhibit No. 32..... 10 8866-8895

But including only the following pages:

8891, 8895 (Giving totals and grand
totals only).

Exhibit No. 34..... 10 8939-8948

Exhibit No. 37..... 10 8974-9226

But including only the following pages:

8975 to 8978, inclusive.

Exhibit No. 39..... 10 9232-9238

Exhibit No. 40..... 10 9240-9250

But including only the following pages:

9240 to 9248, inclusive.

[fol. 407]

Exhibit No. 41..... 10 9252-9256

Exhibit No. 42, consisting of one separately
bound volume styled "Report Annual
Reserve Accruals Required for Lone Star
Gas Co., January 1, 1933..... 9258-9583

But including only the following pages:

9268 down to "Purpose of the Investi-
gation" on page 9271; 9278; 9282 to
9284, inclusive; 9285 down to heading
"Definitions" on page 9289; 9294,
9303, 9304, 9305, 9307, 9309; 9311,
9345, 9398 (last paragraph only); 9402;
9409 to 9427, inclusive; 9438 to 9445,
inclusive; 9455, 9466 to 9476, inclusive;
9485 to 9492, inclusive; 9505 to 9513,
inclusive; 9515 to 9524, inclusive;

	Book of Exhibits	Pages (Inclusive)
9545 to 9550, inclusive; 9555, 9557, 9558, 9560; begin with heading on 9563 to 9571, inclusive; 9577 to 9582, inclusive.		
Exhibit No. 43.....	12	9585-9589
Exhibit No. 44.....	12	9591-9598
Exhibit No. 45.....	12	9600-9721

But including only the following pages:
9606 to 9719, inclusive.

[fol. 408]

Exhibit No. 46.....	12	9723-9771
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But including only the following pages:
9724 to 9726, inclusive; 9729 to 9735, inclusive; 9756; 9765 to 9771, inclusive.

Exhibit No. 47.....	12	9773-9775
Exhibit No. 48.....	12	9777-9783

But including only the following pages:
9778; 9779 (heading and years only); 9780 (years, totals and percentages only); 9781 (heading and years only); 9782 (years, totals and percentages only); and 9783 (heading, years, totals and percentages only).

Exhibit No. 49.....	12	9785-9791
Exhibit No. 50.....	12	9793-9794
Exhibit No. 51.....	12	9796-9798

[fol. 409]

C

The following from the volume of the Transcript of the Record entitled "Final Volume Containing Proceedings in the Court of Civil Appeals and the Supreme Court of Texas, and on Appeal to the Supreme Court of the United States":

	Pages
1. Defendant's (Appellant herein) cross-assignments of error as presented in Appellee's Original Brief filed in the Court of Civil Appeals.....	9- 14
2. Opinion of the Court of Civil Appeals.....	16- 68
3. Judgment of the Court of Civil Appeals.....	69

Pages.

4. Defendant's (Appellant herein) Motion for Rehearing filed in the Court of Civil Appeals, and showing the date of filing	70-138
--	--------

But eliminating the following assignments of error: 11, 13, 15, 17, 18, 19, 20, 21, 23, 24, 27, 28, 32, 38, 45, 46, 54, 55, 68, 69, 70, 71, 73, 90, 91, 92, 111, 128, 129, 130, 131, 132, 134, 135, 136, 138, 139, 140, 141, 142, 147, 148, 149, 150, 151, 152, 155, 157;

And also eliminating the prayer and signature of counsel.

5. Opinion on Appellee's Motion for Rehearing [fol. 410]	139-140
6. Order of the Court of Civil Appeals overruling Appellee's Motion for Rehearing	141

D

The following from said "Final Volume":

1. Docket entry showing filing of Application for Writ of Error	142
2. The following parts of the Application for Writ of Error	143-220

(a) Beginning with the title of the cause on page 143 and extending to the first assignment of error on page 156;

(b) All assignments of error contained in said application beginning on page 156 and extending to 219 but eliminating the following assignments of error:

Twelfth, Thirteenth, Thirty-Seventh, Thirty-Eighth, Thirty-Ninth, Fortieth, Forty-First, Forty-Second, Forty-Sixth, Forty-Eighth, Forty-Ninth and Sixty-Third; and omitting all matter other than the assignments of error.

(c) Also eliminate prayer and signature of counsel on pages 219-220.

(d) Include endorsement showing when application for writ of error was filed in the Court of Civil Appeals and in the Supreme Court, page 220.

3. Order of the Supreme Court of Texas refusing the Application for Writ of Error	221
4. Docket entry showing filing of Motion for Rehearing of the Application for Writ of Error ..	222

[fol. 411] 5. The following parts of the Motion for Rehearing of the Application for Writ of Error	223-272
(a) Beginning with the title page, p. 223, and extending to the words Part I, on page 224;	
(b) All assignments of error contained in said Motion for Rehearing except the following assignments of error; Sixteenth, Forty-Sixth, Forty-Seventh, Forty-Eighth, and Sixty-Second;	
(c) Include endorsement showing when motion was filed in Supreme Court of Texas, p. 272;	
(d) Exclude prayer, signature of counsel; and all other matter contained in the motion.	
6. Order of Supreme Court overruling Motion for Rehearing of Application for Writ of Error	273
7. Certificate of Clerk of Supreme Court of Texas	274
8. Order of Chief Justice of Court of Civil Appeals denying Petition for Appeal to the Supreme Court of the United States	275-276

E

The following from said "Final Volume":

1. Appellant's Petition for Appeal and Assignment of Errors and Prayer for Reversal, with all endorsements appearing thereon (Original)	277-292
[fol. 412] 2. Order allowing appeal and fixing security for costs with all endorsements appearing thereon (Original)	293-296
3. Appellant's Præcipe for Transcript with all endorsements appearing thereon, including acknowledgment of service by appellees' counsel (Original)	308-324
4. Copy of order signed by Mr. Justice Cardozo enlarging time for Appellees' filing of Counter-Præcipe and contents of record, with endorsements appearing thereon	325
5. Appellees' Counter-Præcipe, including acknowledgment of service by appellant's counsel (Original)	326-333
6. Stipulation as to record (Original)	334-339

	Pages
7. Certificate of the Clerk of the Court of Civil Appeals	343-346
8. "Statement of the Points upon which Appellant Intends to Rely and Designation of Parts of the Record to be Printed," and acknowledgment of service by appellees' counsel.	

Roy C. Coffee, Marshall Newcomb, O. K. Shannon,
Jr., Ben H. Powell, Charles L. Black, Attorneys
for Appellant, Lone Star Gas Company.

[fol. 413] Acknowledgment of Service

The undersigned, being the attorneys of record for the Appellees in Lone Star Gas Company, Appellant, vs. State of Texas, et al, Appellees, pending on appeal in the Supreme Court of the United States, hereby acknowledge due service of copy of the foregoing "Statement of the Points upon which Appellant Intends to Rely and Designation of Parts of the Record to be Printed."

Dated at Austin, Texas, this the 14th day of August, 1937.

Wm. McCraw, Attorney General of Texas; Alfred
M. Scott, Assistant Attorney General, Attorneys
for the Appellees, State of Texas, et al.

[fol. 414] [File Endorsement Omitted.]

[fol. 415] IN SUPREME COURT OF THE UNITED STATES

APPELLEE'S DESIGNATION OF ADDITIONAL PARTS OF THE RECORD
TO BE PRINTED—Filed August 18, 1937

Having been served on the 14th day of August, A. D., 1937, with copy of appellant's Designation of Points Intended to be Relied Upon and of Parts of the Record to be Printed, appellees now designate the following additional parts of the record to be printed.

For convenience appellees will designate from the various parts of the record in the same order, and under the same lettered subdivisions, as used by appellant in its said designation.

[fol. 416] All double references are intended to be "both inclusive," unless a contrary intention is indicated.

A

From the Record Made Before the Railroad Commission
of Texas

Attorneys for appellant, Lone Star Gas Company, have stated to counsel for appellees that in view of the fact that in the trial in the 53rd District Court of Travis County, Texas, the appellees (State of Texas et al.) tendered in evidence the entire original record, including oral testimony and exhibits, made before the Railroad Commission of Texas, and the appellant, Lone Star Gas Company, made objections to the admissibility thereof, which objections the trial court sustained and excluded from evidence over the exceptions of appellees the entire Railroad Commission Record (S. F. 2545-2559); and in view of the further fact that neither the Court of Civil Appeals nor the Supreme Court of Texas passed upon the appellees' assignments of error complaining of the exclusion of said Railroad Commission record from evidence; that appellant, Lone Star Gas Company, considers itself foreclosed and estopped from attempting to present or argue in this appeal in this court any assignments or contentions as to what the evidence did or did not show before the Railroad Commission of Texas, except insofar as the evidence admitted by the District Court reflected in certain particulars what the evidence [fol. 417] was as certain points before the Railroad Commission of Texas; and in view of the representations of attorneys for appellant, Lone Star Gas Company, that they do not intend to advert in any way to the evidence and record before the Railroad Commission, except as above indicated, appellees, in reliance upon said representations, at this time designate no part of said Railroad Commission record for printing.

B

From the Record Made in the 53rd Judicial District Court
of Travis County, Texas

I

From the transcript of pleadings, orders, and other proceedings in the District Court:

1. From plaintiffs' Second Amended Original Petition..

2-25

Print only the following:

Paragraph XI, from the beginning at p. 13 through the first paragraph on p. 15; also the whole of the third paragraph on p. 16.

2. From defendant's Second Amended Original Answer.

31-144

Print only the following:

Beginning with the line 3, p. 131, with the word "defendant," through line 41, p. 131.

[fol. 418]

3. From plaintiffs' Second Supplemental Petition.....

146-161

Print only the following:

Second sub-paragraph of Paragraph VIII, p. 151; all of Paragraph IX, p. 152; the sentence beginning with line 19, p. 153 and ending with the word "defendant" in line 28, p. 153; the clause on p. 154 beginning with the word "which" in line 9 and extending through line 16, p. 154; the clause beginning with the word "that" in the seventh line, p. 158, and ending with the word "and" in the eleventh line of the same page.

4. From the Order Overruling Demurrers and Exceptions of Defendant, Lone Star Gas Company....

203-206

Print only the following:

Beginning with paragraph 2 on p. 203, down to the last paragraph on p. 206.

5. Print the Order Overruling Plaintiffs' Motion for peremptory Instruction, July 5, 1934, omitting endorsements.....

219

6. Print the Order Overruling Defendant's Motion to Strike plaintiffs' Exhibit No. 8, omitting endorsements.....

225

7. Print the Order Overruling Plaintiffs' Motion for Peremptory Instruction, July 16, 1934, omitting endorsements.....

228

- | | |
|--|---------|
| 8. Print all of Plaintiffs' Objections and Exceptions to the Court's Charge, and Order Overruling same, omitting endorsements..... | 235-237 |
| 9. From Defendant's Objections and Exceptions to the Court's Charge..... | 238-274 |

Print only the following:
Paragraph V on p. 241.

[fol. 419]

- | | |
|--|---------|
| 10. Print the whole of Plaintiff's Motion for Judgment Non Obstante Veredicto, July 26, 1934, omitting endorsements..... | 523-525 |
| 11. Print the Order Overruling Plaintiffs' Motion for Judgment Non Obstante Veredicto, July 26, 1934, omitting endorsements..... | 533 |
| 12. From the Plaintiffs' First Amended Motion for New Trial, July 26, 1934..... | 535-554 |

Print only the following:

The preliminary paragraph preceding paragraph 1; paragraphs 1, 2, 3, 6, 11, 12, 13, 14, 21, 33, 35, 36, 37, 38, 39, 40, 41, 42, 46, 48, 49, 51, 52, 53, 54, 55, 56, 57, and the last two unnumbered sub-paragraphs and the signatures on p. 553.

- | | |
|---|---------|
| 13. Print the Stipulation for Sending Up on Appeal the Original Record Before the Railroad Commission in Lieu of Transcript Thereof, omitting endorsements..... | 562-563 |
| 14. Print the Order for Inclusion in Record on Appeal of All Original Documentary Evidence and Exhibits Introduced in Trial in District Court, omitting endorsements..... | 583-584 |

II.

From the Statement of Facts (transcript of oral testimony and exhibits) made in the hearing on Defendant's pleas to the jurisdiction and pleas in abatement in the 53rd Judicial District Court, before Honorable W. F. Robertson..... 1-163

Print only the following:

[fol. 420]

From Testimony of Defendant's witness, E. F. Schmidt, print the following portions:

From Line	Page		To Line	Page	
			(inclusive)		
14	4	"Q. In the performance"	9	5	"Schmidt"
15	8	"Mr. Griffith".....	18	15	"six ounces"
4	19	"Q. You don't mean"	14	23	"A. Yes Sir."
top	26	.....	28	34	"not?"
11	37	"The Court".....	3	38	"here"
4	40	"Q. At any rate"	27	41	"A. That is correct."
15	46	"The Court".....	28	47	"Yes, sir."

Print all of the testimony of Witness Karl F. Griffith, from top of p. 51 to bottom of p. 81, except the following portions which are to be eliminated:

20	52	"Q. What is the capitalization"...	17	53	"Stout"
26	56	"Mr. Shannon".....	12	57	"them"
13	58	"Q. Does the Lone Star".....	27	58	"by Mr. Stout"
18	59	"Mr. Shannon".....	13	60	"question"
1	62	"Q. That is".....	11	62	"Mr. Stout"
10	64	"Q. Except".....	6	66	"by Mr. Stout"

[fol. 421]

22	68	"Q. How much money".....	28	69	"by Mr. Stout"
23	76	"Q. If you do not"...	6	77	"by Mr. Stout"
14	77	"If there was".....	18	77	"sustained"
1	79	"Q. Do you know"...	10	79	"by Mr. Stout"
11	80	"Q. Of those directors".....	21	80	"by Mr. Stout"
6	81	"Q. The Lone Star"....bottom	81		

Print all of the testimony of the plaintiffs' Witness, Olin Culberson, pp. 82-97, inclusive, except the following portions, which are to be eliminated:

22	83	"Q. Who does this"...	6	84	"Yes"
17	84	"Mr. Griffith".....	19	84	"admission"
1	86	"Mr. Griffith".....	18	86	"understanding"
1	91	"Mr. Shannon".....	5	91	"Itself"
25	91	"Q. Has the".....	3	92	"sustained"
23	93	"Mr. Griffith".....	24	93	"company"

Print all of the testimony of plaintiffs' witness, S. W. Freese, pp. 98-121, inclusive, except the following portions, which are to be omitted:

22	99	"Mr. Griffith".....	26	99	"Oklahoma"
----	----	---------------------	----	----	------------

[fol. 422]

Print the following exhibits:

Plaintiffs' Exhibit No. 3.....	134-137
Plaintiffs' Exhibit No. 4.....	138 (20 photostatic sheets)
Plaintiffs' Exhibit No. 5.....	139
Plaintiffs' Exhibit No. 6.....	140
Defendant's Exhibit No. 4.....	148-153, inclusive, and map on p. 153A

III.

From the Exhibits before the 53rd Judicial District Court of Travis County, Texas, in the trial upon the merits, print the following:

Plaintiffs' Exhibits:	Book of Exhibits	Pages
Exhibit No. 2.....	6	3564-3569
Exhibit No. 3.....	6	3572-3573
Exhibit No. 4.....	6	3576-3591
Print only p. 3576.		
Exhibit No. 5.....	6	3593-3618

Print only the following pages:

3593, 3597-3609, inclusive; 3612-3616,
inclusive.

Exhibit No. 6.....	6	3620-3662
--------------------	---	-----------

Print only the following pages:

3621, 3622, 3625-3642, inclusive;
3646-3662, inclusive.

[fol. 423]

Exhibit No. 7.....	6	3664-3678
--------------------	---	-----------

Print only the following pages:

3665, 3666, 3675-3678, inclusive.

Exhibit No. 8.....	6	3680-3696
--------------------	---	-----------

Print only the following pages:

3680, 3682, 3687-3696, inclusive.

Exhibit No. 9.....	6	3698
Exhibit No. 10.....	6	3700-3707
Exhibit No. 11.....	6	3709

Defendant's Exhibits:

Exhibit No. 13.....	7	3792-4037
---------------------	---	-----------

Print only the following pages:

3972; 3980-3984, inclusive; 3986-3988,
inclusive; 3994-3998, inclusive; 4000;
4007-4011, inclusive; 4017-4021, in-
clusive.

	Book of Exhibits	Pages
Exhibit No. 15.....	7	4043-4046
Print all of the remainder of this Exhibit not designated for printing by appellant.		
Exhibit No. 16.....	7	4048-4052
Print all of the remainder of this Exhibit not designated for printing by appellant.		
Exhibit No. 17.....	7	4054-4057
Print all of the remainder of this Exhibit not designated for printing by appellant.		
Exhibit No. 18.....	7	4059-4062
Print all of the remainder of this Exhibit not designated for printing by appellant.		
[fol. 424]		
Exhibit No. 19.....	7	4064-4067
Print all of the remainder of this Exhibit not designated for printing by appellant.		
Exhibit No. 20.....	7	4069
Exhibit No. 21.....	7	4071
Print all of the remainder of this Exhibit not designated for printing by appellant.		
Exhibit No. 22.....	7	4073-4077
Print all of the remainder of this Exhibit not designated for printing by appellant.		
Exhibit No. 23.....	7	4079-4083
Print all of the remainder of this Exhibit not designated for printing by appellant.		
Exhibit No. 24.....	7	4085-4089
Print all of the remainder of this Exhibit not designated for printing by appellant.		
Exhibit No. 25.....	7	4091-4093
Exhibit No. 26.....	7	4095
Print all of the remainder of this Exhibit not designated for printing by appellant.		
Exhibit No. 27.....	7	4097-4101
Print all of the remainder of this Exhibit not designated for printing by appellant.		
Exhibit No. 28.....	8-A to 8-H	(inclusive) 4104-8608

From Volume II (Book 8-B) print only the following pages or portions as indicated:

5238

[fol. 425]

From Volume III (Book 8-C) print only the following pages or portions as indicated:

5562; 5563; 5573; 5574; 5583-5585, inclusive; 5587-5589, inclusive; 5591-5599, inclusive; 5603; 5607-5612, inclusive;

5619; 5621; 5622; 5623; 5625; 5635-5640, inclusive; 5649-5651, inclusive; 5672; 5673; 5680-5682, inclusive; 5688; 5689; 5695; 5696; 5705; 5706; 5714; 5733; 5742; 5750; 5759-5762, inclusive; 5763-5765, inclusive; 5771; 5779-5782, inclusive; 5792; 5793; 5812; 5813; 5825-5828, inclusive; 5844; 5851; 5852; 5858-5860, inclusive; 5870; 5873-5875, inclusive; 5877; 5878; 5912-5914, inclusive; 5916; 5917; 5920; 5927-5936, inclusive; 5963-5965, inclusive; 5977-5993, inclusive.

From Volume IV (Book 8-D) print only the following pages or portions as indicated:

6012; 6026; 6032-6035, inclusive; 6062; 6063; 6075; 6076; 6087; 6089-6091, inclusive; 6103; 6104; 6107; 6113-6115, inclusive; 6124-6132, inclusive; 6146-6148, inclusive; 6109; 6175; 6176; 6206-6208, inclusive; 6222; 6231; 6232 down to and through "total line E 4 \$6,395.26"; 6266; 6275; 6306; 6337; 6354; 6389; 6431; 6432; 6449; 6450; 6468; 6470; 6478-6480, inclusive; 6482-6484, inclusive; 6490; 6507; 6510; 6515; 6523; 6611; 6612; 6621; 6622; 6632; 6633; 6636-6640, inclusive; 6642-6644, inclusive.

From Volume VII (Book 8-G) print only the following pages or portions as indicated:

[fol. 426]

7857; 7869-7874, inclusive; 7877-7938, inclusive; 7942-7947, inclusive; 7950-7951, inclusive; 7953-7963, inclusive; 7965-7985, inclusive; 7987-9789, inclusive; 7991-8010, inclusive; 8012-8013, inclusive; 8015-8023, inclusive; 8025-8026, inclusive; 8028-8037, inclusive; 8039-8046, inclusive; 8048-8053, inclusive;

[fol. 427]

8055-8071, inclusive; 8073-8083, inclusive; 8085-8090, inclusive; 8092-8094, inclusive; 8097-8103, inclusive; 8106; 8110-8128, inclusive; followed by the following notation: "(Note: Here follow pp. 8129-8192, inclusive, omitted

Book of Exhibits	Pages
---------------------	-------

in printing, setting forth detail similar to that just above shown"); 8193, 8195-8226, inclusive, followed by the following notation: "(Note: Here follow pp. 8227-8263, inclusive, omitted in printing, setting forth detail similar to that just above shown); 8264-8300, inclusive, followed by the following notation: "(Note: Here follow pp. 8301-8334, inclusive, omitted in printing, containing detail detail similar to that just above shown)"; 8335-8368, inclusive; 8370-8402, inclusive; 8405-8446, inclusive.

From Volume VIII (Book 8-H) print only the following pages or portions as indicated:

8450; 8459-8475, inclusive; 8479-8511, inclusive; 8514-8521, inclusive; 8524-8532, inclusive; 8535-8557, inclusive, followed by the following notation: "(Note: Here follow pp. 8558-8563, inclusive, omitted in printing, showing detail similar to that last above shown); 8564-8586, inclusive, followed by the following notation: "(Note: Here follow pp. 8587-8591, inclusive, omitted in printing, containing detail similar to that last above shown)"; 8592-8603, inclusive; 8606-8607.

Exhibit No. 29 (Map of System).....	9-A	8610
[fol. 428]		
Exhibit No. 30.....	9-B	8612-8856

Print only the following pages and portions indicated:

8614; 8619; 8622; 8626; 8627; 8630; 8637; 8639; 8642; 8662; 8663, lines 1, 2, and 3; 8663, line 16, through line 7, p. 8664; 8665-8666, inclusive; 8668; 8670; 8706; 8712; 8717; 8736; 8742; 8743, lines 1, 2, 3, and 19-24 through the word "decline"; 8747; 8748, lines 1-6, inclusive; 8749, lines 2-4, inclusive; 8751; 8765, lines 1-7, inclusive, followed by following notation: "(Note: The remainder of p. 8765 down to and including line 27, p.

3537

	Book of Exhibits	Pages
8772, contains data similar to that above shown and are omitted in printing); 8772, line 28, only, followed by the following notation: "(Note: p. 8773 through line 9, p. 8799, contain detail similar to that just above shown and are omitted in printing)"; 8799, print totals in line 10, only; 8800, print lines 1-7, inclusive, followed by the following notation: "(Note: From line 8, p. 8800, through line 13, p. 8805, data are set forth similar to that above shown, and are omitted in printing)"; and on p. 8805, print only lines 14-16, inclusive.		
Exhibit No. 31.....	10	8858-8864
Print only the following pages: 8858; 8861-8864, inclusive.		
Exhibit No. 32.....	10	8866-8895
Print only the following pages and portions indicated: 8866; 8867, lines 1-9 inclusive, followed by the following notation: "(Note: From line 10, p. 8867, through line 19, p. 8870,		
[fol. 429]		
follow data similar to that above shown, omitted in printing)"; print p. 8870, line 20, only, followed by following notation: "(Note: from line 21, p. 8870, through line 12, p. 8879, follow data similar to that above shown, omitted in printing)"; p. 8879, print line 13, only, followed by following notation: "(Note: From line 14, p. 8879, through line 14, p. 8891, are shown data similar to above, omitted in printing)"; p. 8891, print line 15, only, followed by the following notation: "(Note: From line 16, p. 8891, through line 23, p. 8895, follow data similar to above, omitted in printing)"; p. 8895, print lines 24 and 25, only.		
Exhibit No. 33|.....	10	8897-8937
Print only pp. 8897 and 8901, lines 1-10, inclusive.		
Exhibit No. 37.....	10	8974-9226
Print only the following pages: 8981; 8988; 9003; 9035; 9054; 9121; 9219.		

	Book of Exhibits	Pages (Inclusive)
Exhibit No. 40.....	10	9240-9250
Print only pp. 9249-9250, inclusive.		
Exhibit No. 42.....	11	9259-9582

Print only following pages and portions:

9271 from "Purpose of the Investigation" to bottom of page; 9272-9277, inclusive; 9278-9281, inclusive; 9295-9300, inclusive; 9314, line 1-22, inclusive; 9322-9323, inclusive; 9334; 9339-9344, inclusive; 9403-9404, inclusive; 9407-9408, inclusive; 9428-9436, inclusive; 9446-9453, inclusive; 9463-9465, inclu-

[fol. 430]

sive; 9480; 9498-9500, inclusive; 9503; 9514; 9525; 9529-9530, inclusive; 9532-9537, inclusive; 9554; 9556; 9559; 9561-9562, inclusive; 9574-9575, inclusive.

Exhibit No. 45.....	12	9600-9721
---------------------	----	-----------

Print only the following pages:

9600; 9720-9721, inclusive.

Exhibit No. 46.....	12	9723-9771
---------------------	----	-----------

Print only the following pages:

9723; 9736-9755, inclusive; 9757-9764, inclusive.

Exhibit No. 48.....	12	9777-9783
---------------------	----	-----------

Print only the following pages:

9777 and 9779-9783, inclusive.

[fol. 431]

IV

From the oral testimony in question and answer form before the 53rd Judicial District Court of Travis County, Texas in the trial upon the merits, being Volumes 1-5, inclusive, print the following portions:

From Line	Page	To Line	Page (inclusive)
17	1		
9	15	10	15
7	58	18	58
1	59	4	59
17	59	2	60
7	65	5	71
6	89	10	89

"This shows"

3540

From
Line Page

To
Line Page
(inclusive)

6 90
10 103

3 91

down to "The ex-
hibit shows, etc."

1 161

4 161

11 161

20 161

11 162

24 162

23 164

14 173

10 178

16 180

14 182

12 183

8 242

1 244

20 247

16 248

11 317

7 318

18 318

23 318

13 336

3 337

6 390

25 393

21 397

7 398

23 404

20 405

18 406

24 406

16 409

3 410

6 420

26 422

23 450

14 451

9 453

20 458

20 462

8 463

19 472

12 477

21 486

5 488

18 499

18 500

9 503

4 504

7 534

22 536

25 536

13 539

17 586

2 588

13 590

9 591

"whatsoever"

6 608

7 614

16 614

20 614

10 615

20 638

[fol. 432]

1 639

20 642

8 643

18 643

13 653

"The next item"

22 655

"Oklahoma"

6 657

11 657

15 662

27 662

"tract"

13 673

21 674

7 731

2 732

26 734

"Q. What method"

14 735

18 748

15 749

I 758

13 758

23 760

2 761

13 761

11 762

1 773

5 785

From		To	
Line	Page	Line	Page
		(inclusive)	
18	785	19	789
1	790	25	802
11	804	13	809
24	814	25	814
19	827	18	830
18	831	14	840
12	842	26	842
11	843	17	859
23	859	11	873
19	873	27	873
8	874	9	880
16	881	3	897
10	897	14	907
2	915	28	922
3	923	9	929
18	929	21	930
1	931	3	931
6	931	11	938
8	939	5	947
8	950	19	970
5	971	2	985
16	985	20	993
8	994	24	1011
1	1023	4	1037
15	1037	15	1047
[fol. 433]			
8	1048	18	1049
22	1049	11	1054 A
6	1055	26	1073
2	1074	6	1092
10	1097	9	1103
8	1104	17	1105
21	1114	11	1117
25	1121	1	1122
3	1161	9	1167
11	1195	2	1196
4	1198	12	1198
20	1198	12	1223
24	1223	11	1233
1	1234	25	1240
9	1248	24	1249
24	1253	17	1254
19	1254	1	1255
13	1255	14	1255
20	1255	18	1258
15	1482	19	1435
2	1486	21	1488

From		To	
Line	Page	Line	Page (inclusive)
25	1488	24	1493
11	1510	9	1512
14	1557	1	1566
1	1567	21	1569
3	1572	2	1574
15	1588	25	1588
13	1599	19	1599
25	1638	14	1639
1	1641	17	1641
1	1644	11	1645
24	1682	15	1683
3	1735	7	1740
10	1741	13	1754
23	1754	13	1779
2	1780	27	1816
8	1818	23	1819
23	1820	5	1830
1	1847	24	1847
13	1848	5	1849
7	1850	1	1854
9	1854	25	1854
21	1857	2	1861
6	1872	20	1875
11	1877	13	1877
4	1881	15	1884

[fol. 434]

22	1884	22	1889
1	1890	19	1894
18	1895	11	1896
3	1911	8	1911
5	1914	13	1914
16	1919	15	1920
4	1933	24	1933
15	1958		
9	2063	20	2063
4	2066	23	2067
6	2069	10	2069
6	2070	10	2070
22	2072	24	2072
4	2073	9	2073
4	2087	20	2087
2	2088	4	2099
1	2105	18	2105
2	2107	2	2122
2	2124	5	2124
10	2125	17	2127
19	2127	15	2128
12	2133	29	2135

From		To	
Line	Page	Line	Page (inclusive)
4	2142	5	2145
1	2210	19	2212
9	2216	27	2216
14	2219	9	2221
15	2222	25	2224
1	2233	22	2233
6	2234	13	2236
1	2237	3	2237
17	2239	6	2248
8	2251	9	2251
2	2252	26	2261
7	2262	4	2272
1	2273	25	2274
20	2302	25	2302
22	2310	23	2310
5	2347	11	2347
1	2363	7	2366
9	2366	20	2367
4	2371	10	2371
21	2479	25	2482 "conditions"

[fol. 435]

1	2484	26	2487
4	2498	17	2498
14	2508	18	2508
3	2516	4	2516
1	2517	14	2517
1	2521	4	2521
4	2545	20	2555 "introduced"
25	2558	21	2559
3	2564	16	2564
21	2565	8	2569
25	2576 "Well"	10	2577
5	2585	11	2585
9	2588	19	2588
8	2596	19	2596
1	2614		
26	2614 "Unless it be"	11	2615 "into that"
23	2617	8	2619
8	2620	4	2622
12	2628	13	2628
1	2659	11	2659
11	2662	6	2663
5	2678	7	2678
13	2678	14	2678
19	2695	23	2695
6	2716	7	2716
8	2718		
2	2749	19	2754

From			To	
Line	Page		Line	Page
				(inclusive)
15	2770		17	2774
22	2774	"Observation 35"	23	2774
7	2775	"Observation 36"	23	2775
26	2775		11	2776
1	2777		2	2777
13	2777		21	2784
22	2798	Add "Q" before "Suppose"		
8	2818		22	2818
8	2822		12	2827
1	2828		14	2834
18	2846		25	2846
13	2855		22	2855
3	2859		20	2860
18	2863		6	2864
13	2867		16	2867
16	2872		8	2879

[fol. 436]

16	2885	1	2886	
18	2890	3	2892	
25	2892	6	2893	
9	2895	25	2899	
13	2901	8	2904	
22	2905	1	2906	
5	2907	24	2908	"You wish"
7	2909	10	2911	
9	2930	11	2930	
3	2933	15	2934	
8	2941	through "work done."		
1	2972	11	2974	"way"
10	2976	15	2976	
4	2982	10	2982	
25	2982	5	2983	
3	2984	13	2984	
3	2989	24	2989	
13	2990	3	2991	
17	2995	19	2999	
13	3001	20	3001	
4	3002			
3	3055	4	3055	
6	3076	25	3079	
11	3097	7	3098	
18	3103	2	3105	
18	3105	1	3106	
14	3125	7	3126	"Mr. Griffith"
1	3135	17	3135	
3	3153	Add "A" before "This"		
7	3178	13	3181	
19	3182	22	3183	

From		To	
Line	Page	Line	Page
			(inclusive)
25	3183	5	3184
5	3185	6	3185
10	3226	11	3226
18	3226	9	3242
14	3242	4	3251
7	3251	7	3258
11	3307	20	3307
9	3334	14	3335
14	3380	18	3387
20	3387 "in all rock	25	3388
[fol. 437]			
24	3389	7	3390
11	3391		
21	3391 Add "A" before "It would"		
21	3407	3	3411
13	3413	20	3414
10	3419	3	3420
11	3469	21	3469
14	3470		
1	3489	20	3490
12	3491	7	3497
18	3497	15	3514
1	3537	6	3537
20	3542	17	3543
20	3543	1	3545
11	3556	13	3556
20	3559	21	3559

[fol. 438]

C

From the Record in the Court of Civil Appeals

1. Assignments of Error Nos. 1-46, inclusive, filed by State of Texas et al. (appellants in the Court of Civil Appeals, appellees here) and set forth at pages 251-264 of the original brief filed in the Court of Civil Appeals by the State of Texas et al.

2. Excerpt from the original brief filed in the Court of Civil Appeals by the Lone Star Gas Company, appellee in said court, appellant herein, beginning with the words "defendant does not deny" in the third paragraph on p. 218, and extending through the words "by a prohibited short cut" in the first paragraph on p. 219 of said brief.

D

From the Record and Proceedings in This Cause in the Supreme Court of Texas

1. The following excerpts from the Application for Writ of Error filed by the Lone Star Gas Company in the Court

of Civil Appeals and transmitted to and filed in the Supreme Court of Texas:

(a) The third paragraph on p. 47 of said Application, beginning with the words "It is quite true" and ending with the words "in interstate commerce."

(b) Beginning with the words, "If, however," beginning on the eighth line from the bottom of p. 217 and extending through the words "would have been unnecessary" in the [fol. 439] fourth line from the top of p. 218.

(c) Beginning with the words "It is clear from the opinions" on p. 121, under the heading "Argument" and extending through the words "defendant at the city gates" in the eleventh line of said argument.

2. The following excerpts from the above mentioned application for Writ of Error filed by Lone Star Gas Company.

(a) The second paragraph on p. 79, beginning with the words "If these arbitrary additions" and ending with the words "expenses above noted."

(b) The third paragraph on p. 95, beginning with the words "The witness Freese" and extending through the words "only 5.77 per cent."

E

The Appeal Papers in the Supreme Court of the United States

Appellees' counter-printing præcipe (this document).

Dated this 16th day of August, A. D. 1937.

William McCraw, Attorney General of Texas. Alfred
M. Scott, Assistant Attorney General.

[fol. 440] [File endorsement omitted.]

Endorsed on cover: File No. 41,794. Texas Court of Civil Appeals for the Third Supreme Judicial District. Term No. 313. Lone Star Gas Company, appellant, vs. State of Texas, The Railroad Commission of Texas, et al. Filed August 13, 1937. Term No. 313, O. T., 1937.

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PAGE